US Army Corps of Engineers
Huntington District

Temporary Housing Training

18 - 22 June 2007

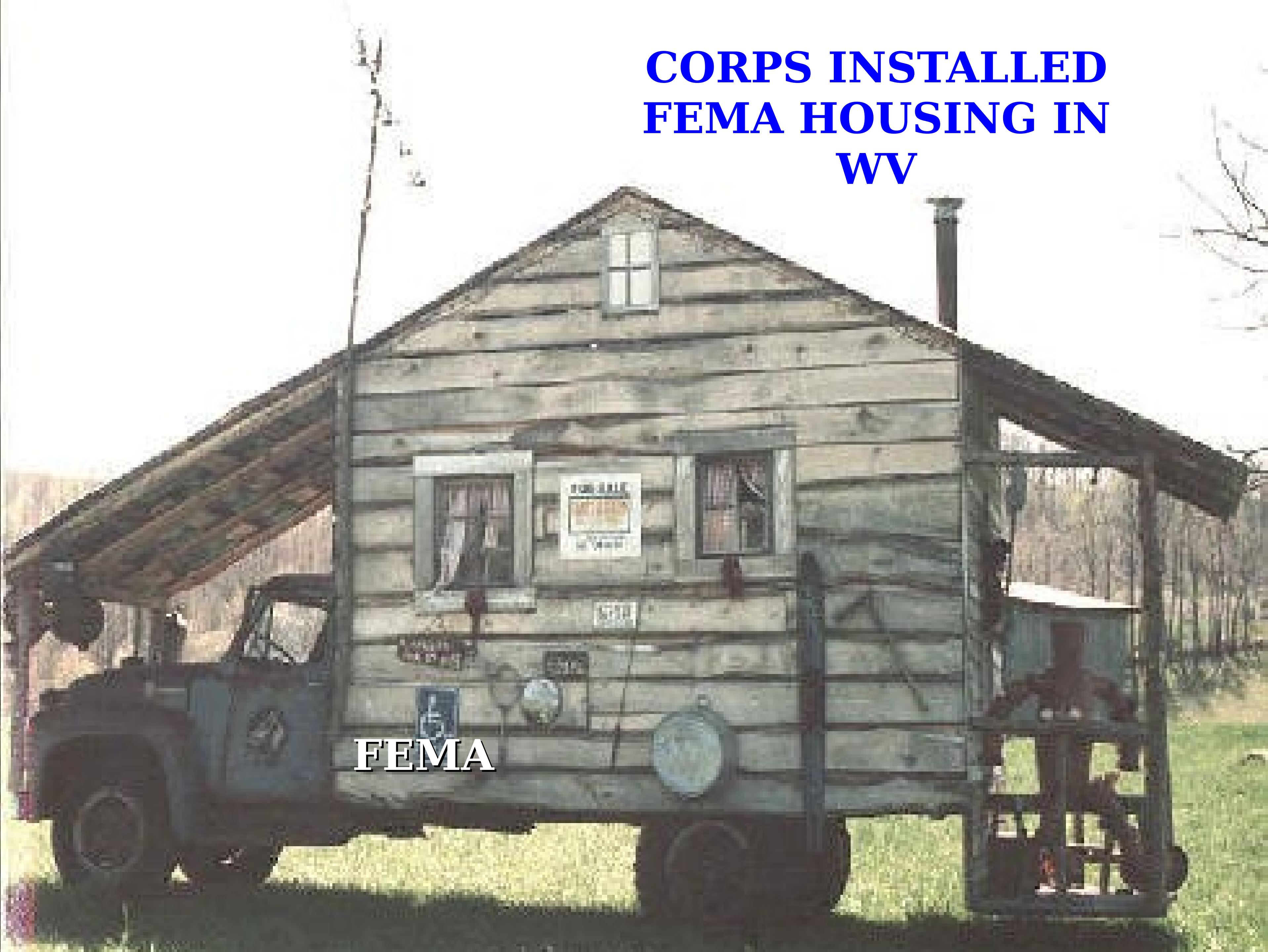
New Orleans, LA

Temporary Housing Training

Objectives

- Review National Response process and how it relates to Emergency Support Function #3 (ESF) and the Planning and Response Teams (PRTs)
- Review types of Housing Missions
- Minimize use of acronyms (MUOA)
- Open Discussion, share ideas
- Develop contacts

CORPS INSTALLED FEMA HOUSING IN WV



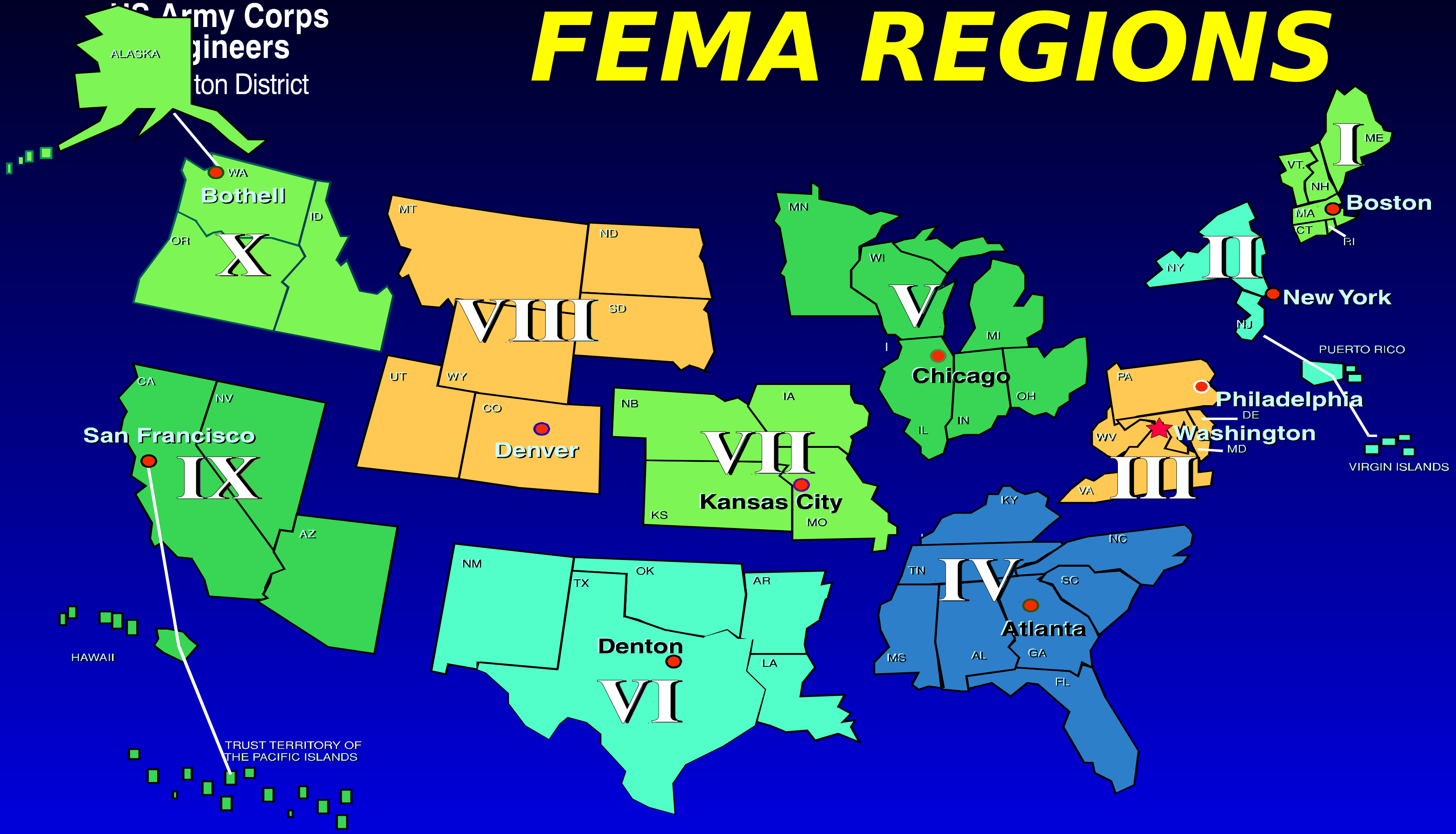
FEMA Housing Priorities

- FEMA uses all existing housing including hotels, motels and rental property.
- Pays disaster victims.
- Temporary housing is last resort.
- FEMA is presently using a variety of ways to purchase temporary homes, FEMA, Corps and GSA.
- FEMA has developed National Contracting capabilities IA-TAC.

One Corps serving the Army and the Nation

my Corps
gineers
ton District

FEMA REGIONS


ALASKA
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Boston
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New York
NJ
PUERTO RICO
PA
Philadelphia
DE
WV
Washington
MD
VIRGIN ISLANDS
VA
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San Francisco
IX
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WY
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Denver
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IA
VII
Kansas City
KS
MO
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SC
Atlanta
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AL
GA
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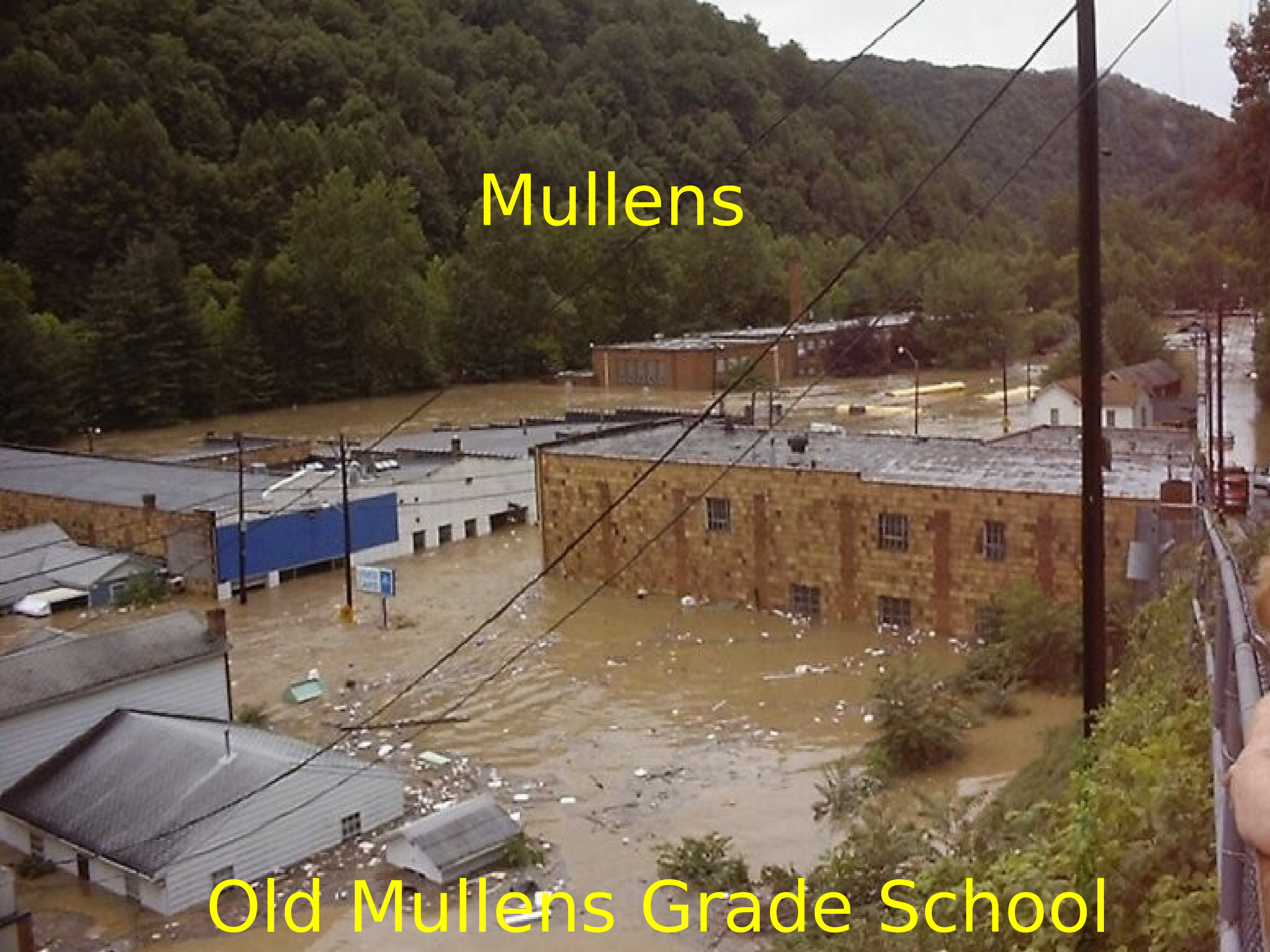
VI
HAWAII
TRUST TERRITORY OF THE PACIFIC ISLANDS

The U.S. Army Corps of Engineers' Response to

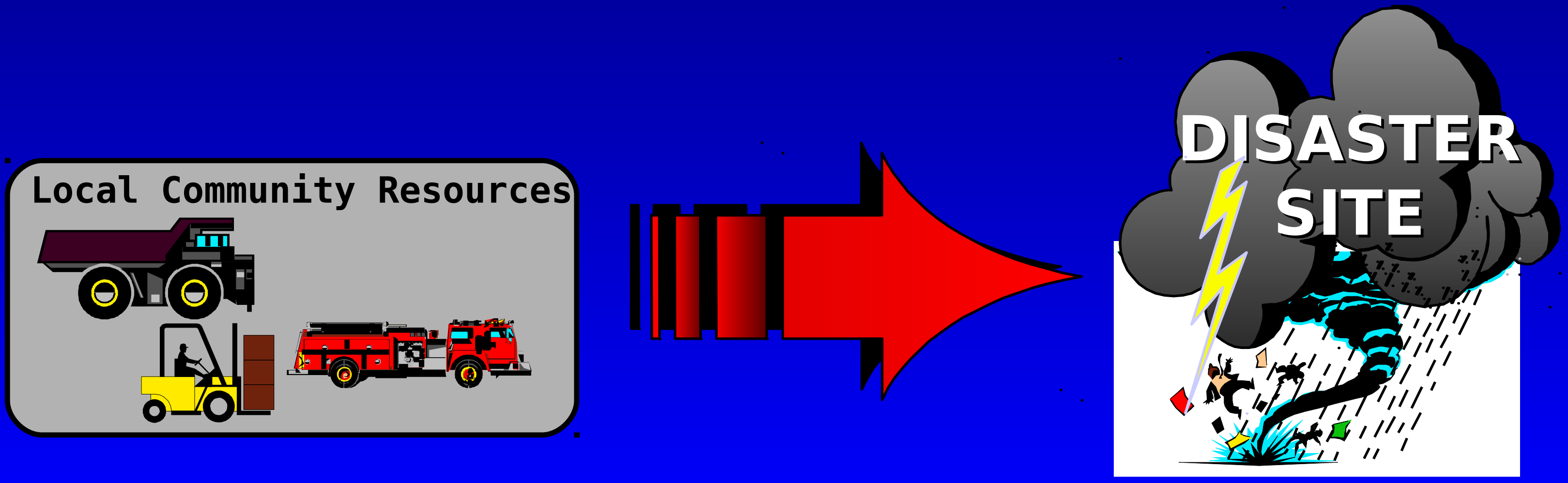
Hurricane Katrina


Mullens
Old Mullens Grade School

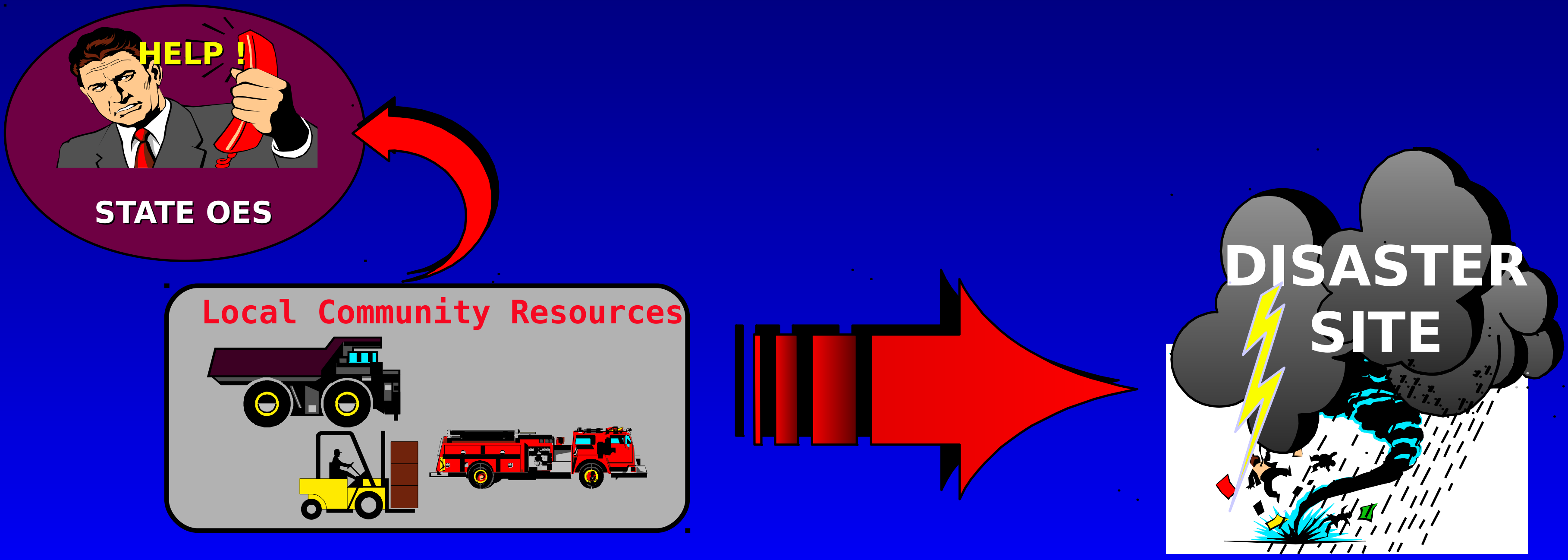
PAX REUNION
PAX, WEST VIRGINIA
WELCOME TO
PAX
Home of the PAX Reunion
REU
JULY

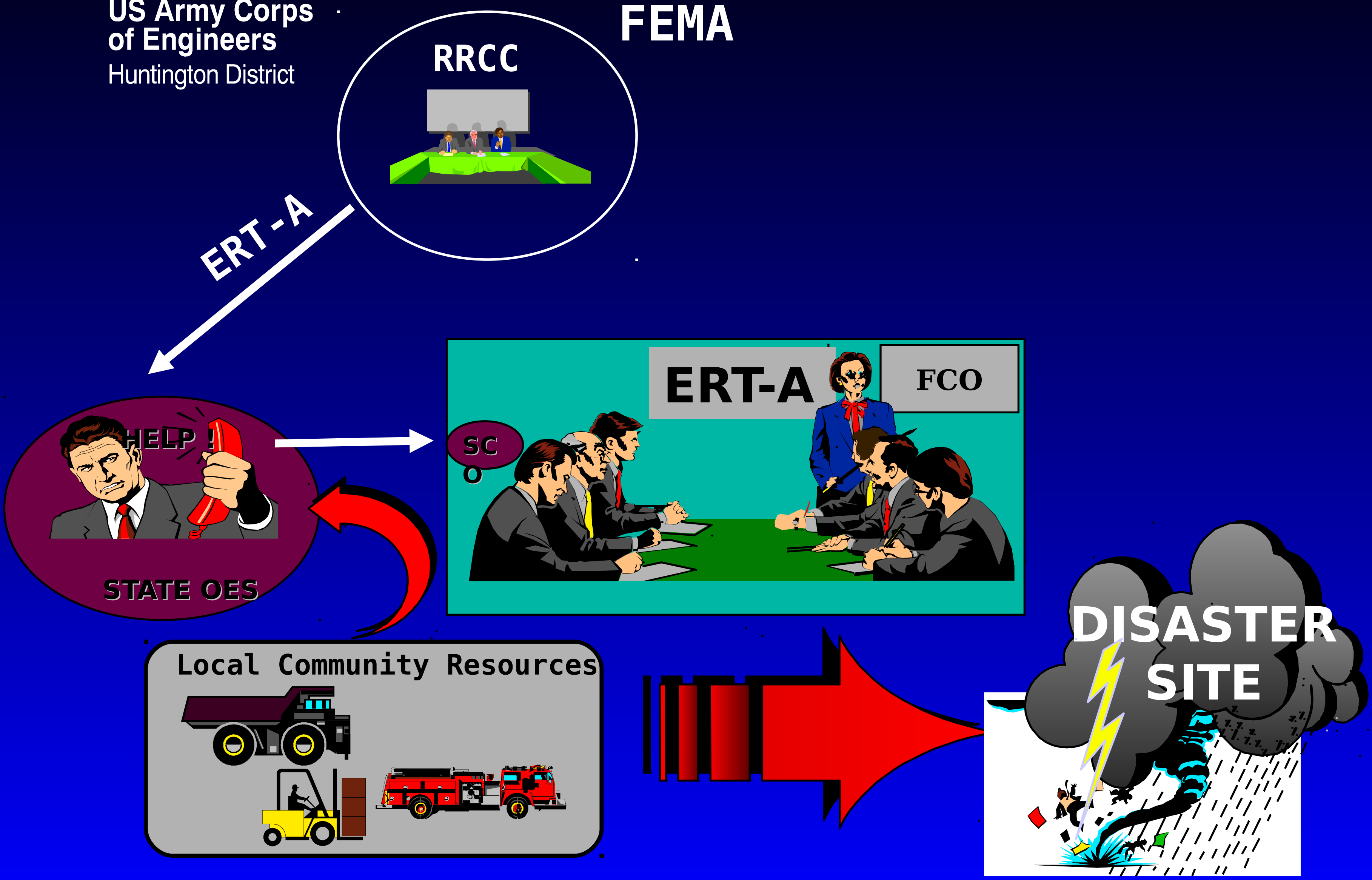
Response Process

DISASTER
SITE



Local Community Resources
DISASTER SITE


HELP !
STATE OES
Local Community Resources
DISASTER SITE



FEMA

RRCC

ERT-A

HELP !

STATE OES

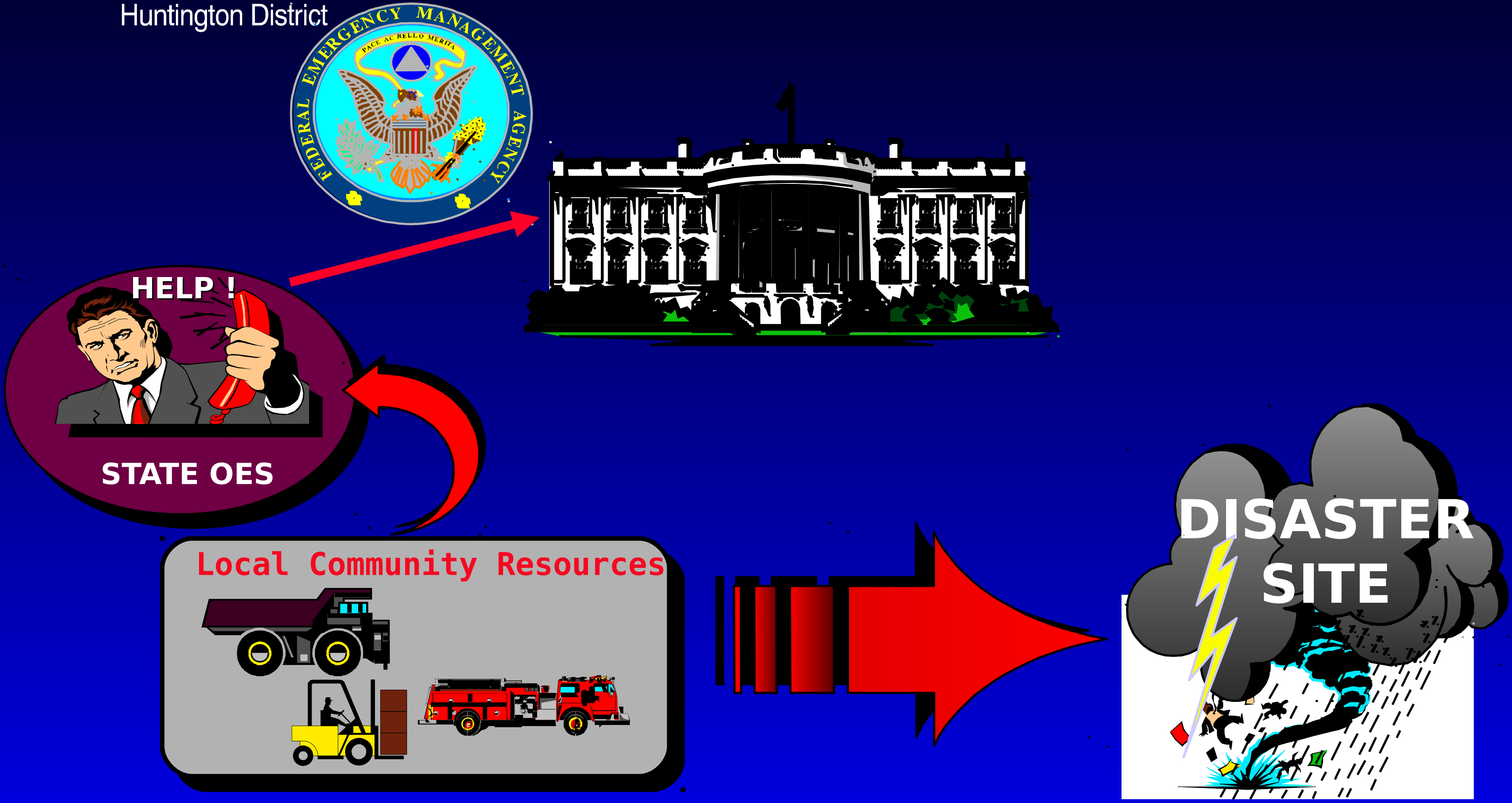
ERT-A

FCO

SCO

Local Community Resources

DISASTER SITE

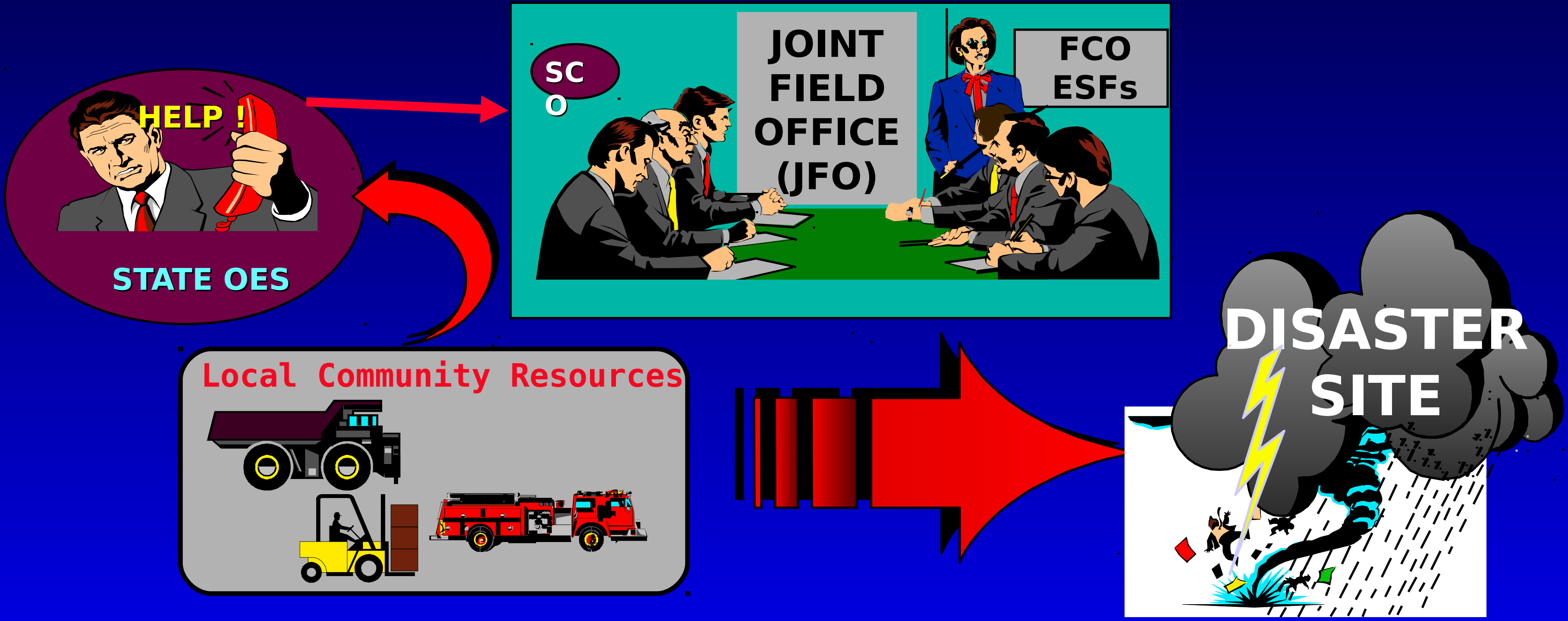

FEDERAL EMERGENCY MANAGEMENT AGENCY
PACE AC BELLO MERITA

HELP !

STATE OES

Local Community Resources

DISASTER SITE



HELP !

STATE OES

SCO

JOINT FIELD OFFICE (JFO)

FCO
ESFs

Local Community Resources

DISASTER SITE

Robert T. Stafford Act

Assistance to FEMA

- Federal Response Plan, ESF3 (Public Works and Engineering)
- Assigned Planning and Response Team for Temporary Housing by USACE

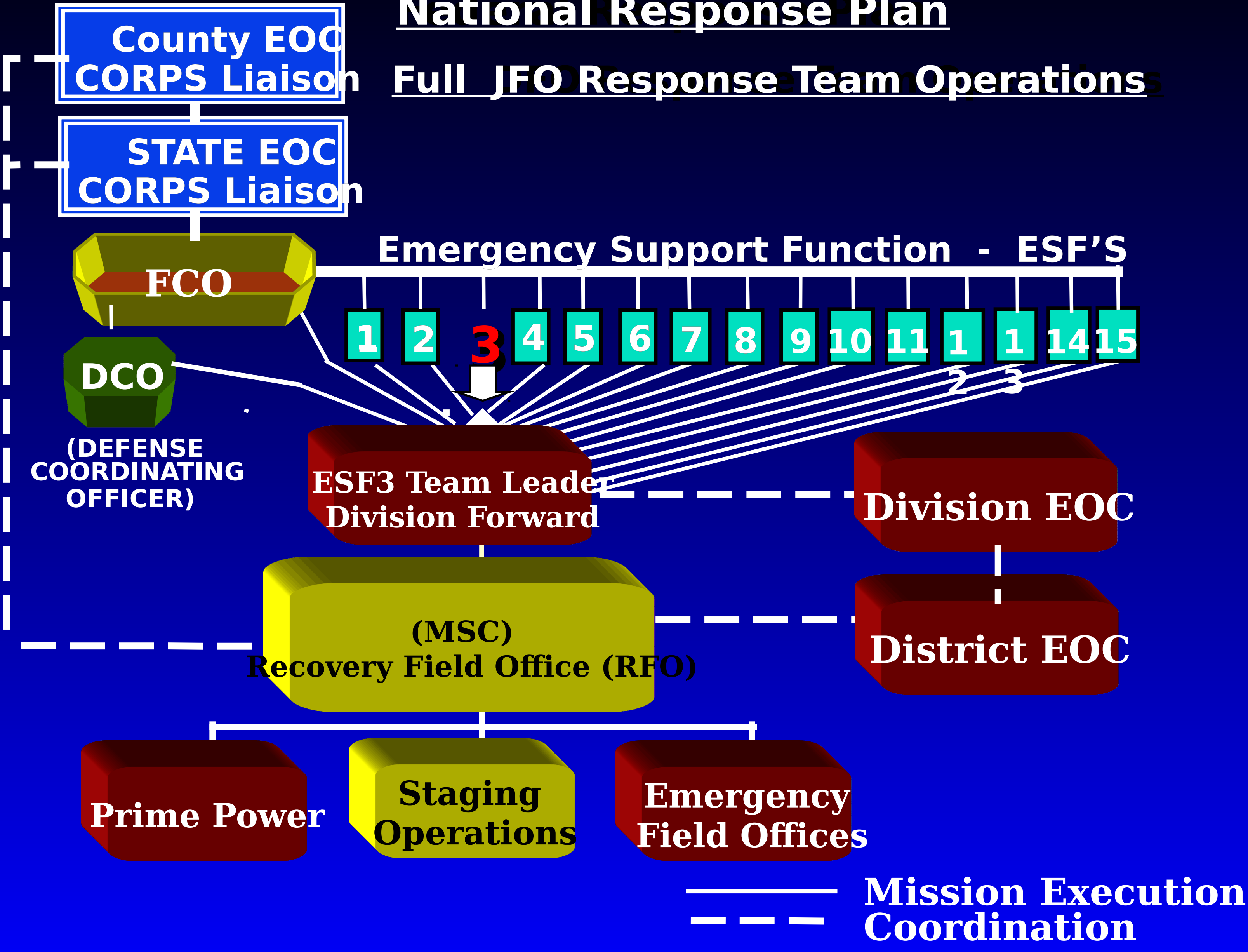
Emergency Support Functions (ESFs)

1. Transportation – DOT
2. Communications – DHS/NCS
3. Public Works and Engineering – Corps
4. Firefighting – USDA/USFS
5. Emergency Management – DHS/FEMA
6. Mass Care – Red Cross
7. Resource Support – GSA
8. Public Health and Medical Services – HHS/Public Health Service
9. Urban Search and Rescue – DHS
10. Oil and Hazardous Materials – EPA
11. Agriculture and Natural Resources – USDA
12. Energy – DOE
13. Public Safety and Security – DHS
14. Long Term Recovery – DOC
15. External Affairs - DHS

JFO

National Response Plan

Full JFO Response Team Operations



County EOC
CORPS Liaison

STATE EOC
CORPS Liaison

FCO

DCO

(DEFENSE COORDINATING OFFICER)

Emergency Support Function - ESF’S

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

ESF3 Team Leader
Division Forward

Division EOC

(MSC)
Recovery Field Office (RFO)

District EOC

Prime Power

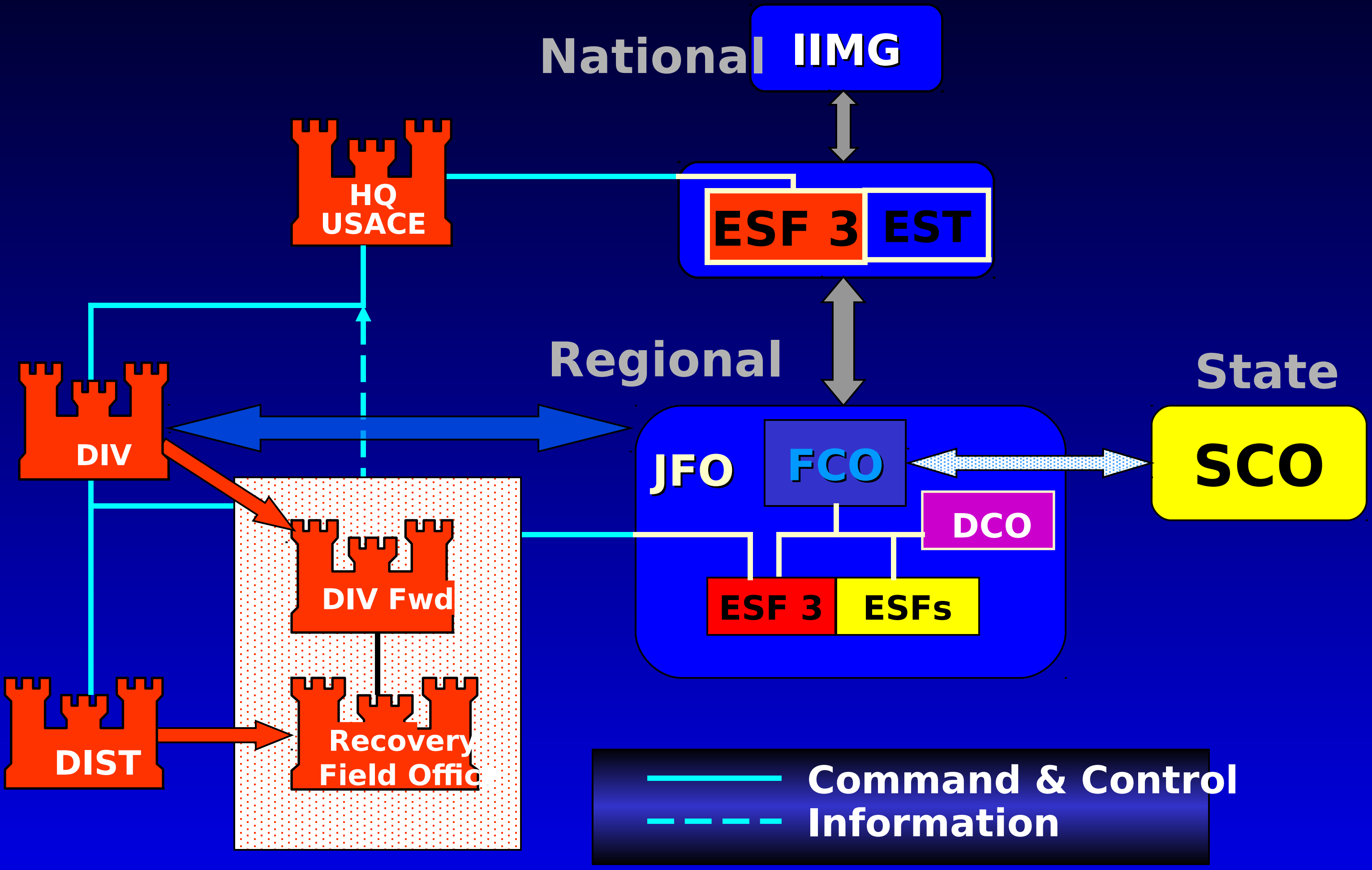
Staging Operations

Emergency Field Offices

Mission Execution

Coordination

USACE Response



National

IIMG

HQ USACE

ESF 3

EST

Regional

State

DIV

JFO

FCO

SCO

DCO

DIV Fwd

ESF 3

ESFs

DIST

Recovery Field Offic

Command & Control

Information

The National Response Plan

US ARMY CORPS OF ENGINEER

ESF # 3 PUBLIC WORKS & ENGINEERING

MISSIONS

- **Emergency Power**
- **Potable Water**
- **Ice**
- **Debris Removal**
- **Technical Assistance**
- **Temporary Housing**
- **Temporary Roofing**
- **Emergency Access**
- **Repair Public Facilities**
- **Structural Evaluations**

- FEMA authorizes USACE through Mission Assignments/Funds.

- The missions are accomplished b contracting with private contractor

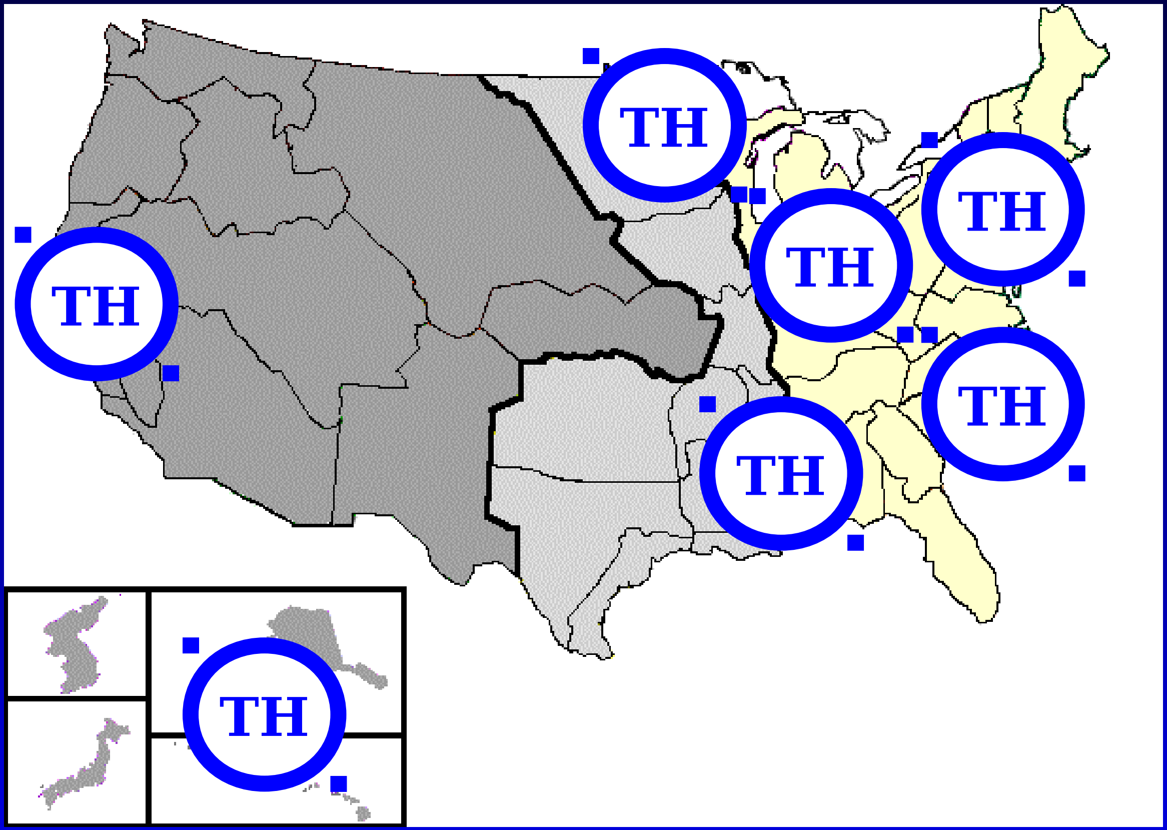
- The Corps is responsible for life cycle mission management includi planning, funds management, and contract management.

Planning and Response Teams

Number of Teams

7 - Ice
7 - Water } Commodities
8 - Emergency Power
7 - Debris Removal
7 - Temporary Housing
1 - Emergency Access
4 - Temporary Roofing
4 - Structural Safety Assessment

Temporary Housing Teams

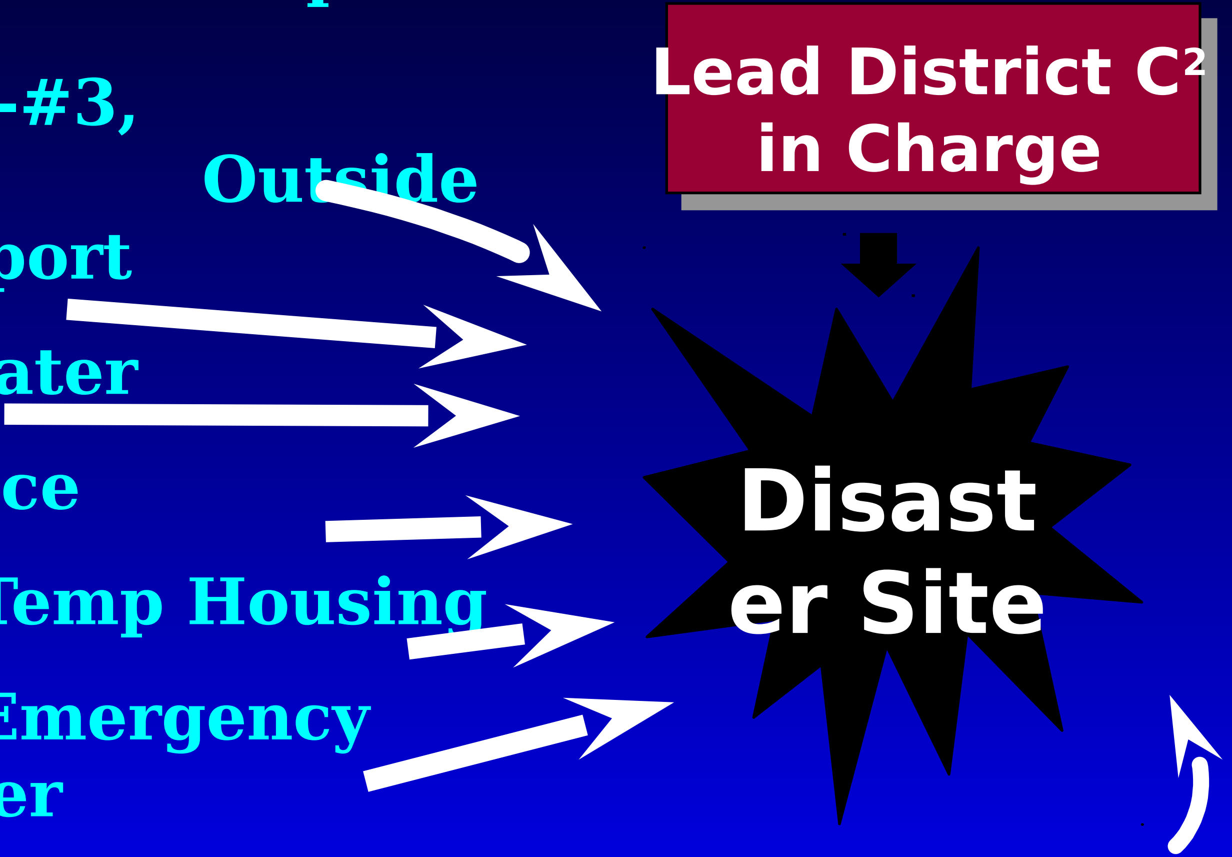


Districts

- **Savannah**
- **Huntington**
- **New York**
- **St Paul**
- **Los Angeles**
- **POD**
- **Vicksburg**

"The New Way" - R2K

Response Team Concept -- Example



Lead District C^2 in Charge

MSC - ESF-#3, Outside Support

Dist-1 - Water

Dist-12 - Ice

Dist-23 - Temp Housing

Dist-14 - Emergency Power

Dist-37 - Debris Removal

Disaster Site

Functional Teams

TEMP. HOUSING

Team Configuratio

ESF-3 - Action Officer

Mission Manager - Mission Management, Coordination, Br

Mission Specialist - Reports, Coordination

Contract Specialist	***QA Inspectors (6)***
LM - Receiving, QA	***LM - Receiving, QA (Night***

Site Engineer- Design

CADD/InRoads

Electrical Engineer

Environmental Engineer

Cost Estimator

Resident Engineer (2)

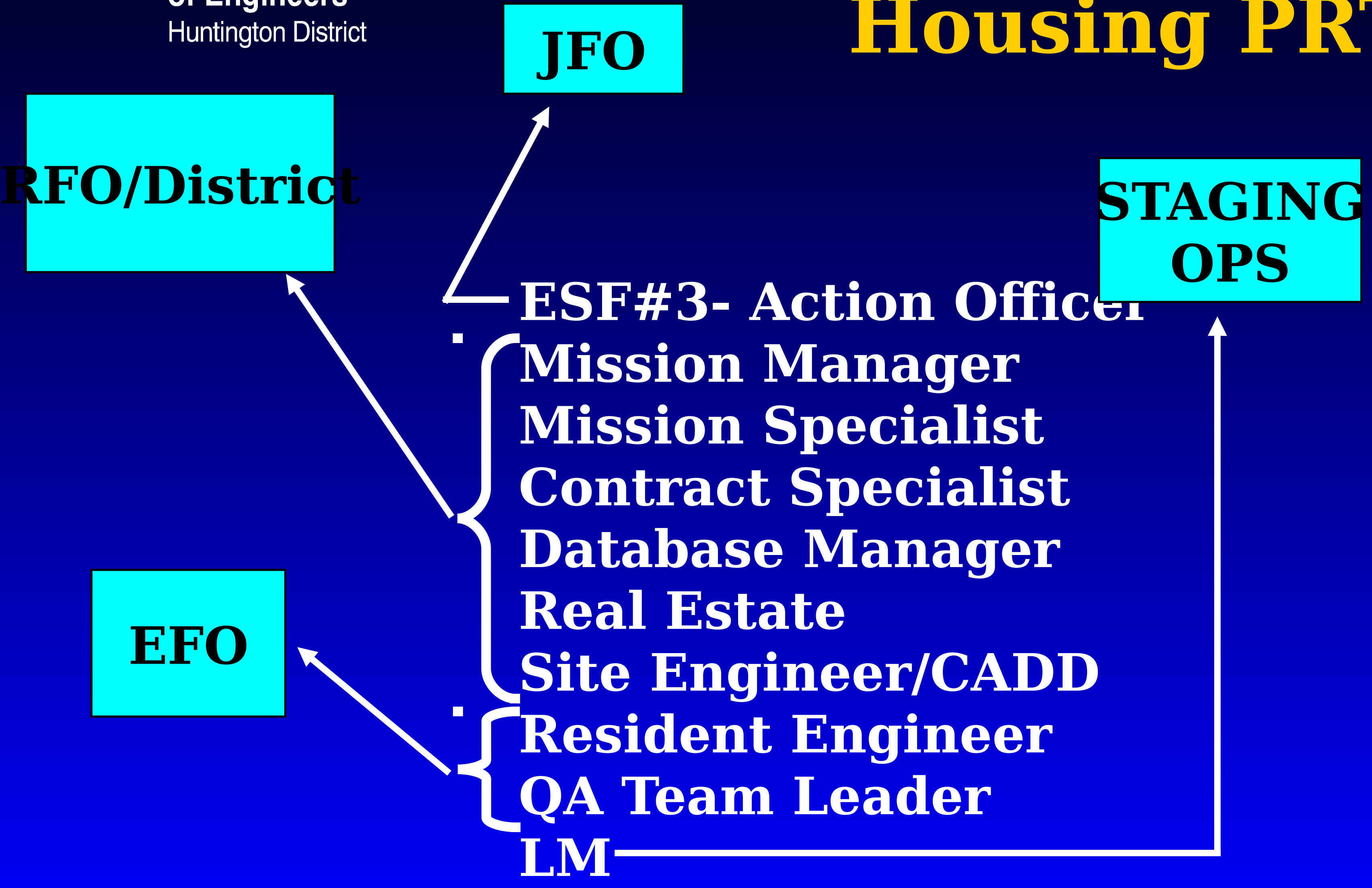
Data Base Manager

QA Team Leader(2)

Real Estate(2)

NEPA Compliance Manager

Deployment Locatio
Housing PRT



JFO

RFO/District

STAGING OPS

EFO

ESF#3- Action Officer

Mission Manager

Mission Specialist

Contract Specialist

Database Manager

Real Estate

Site Engineer/CADD

Resident Engineer

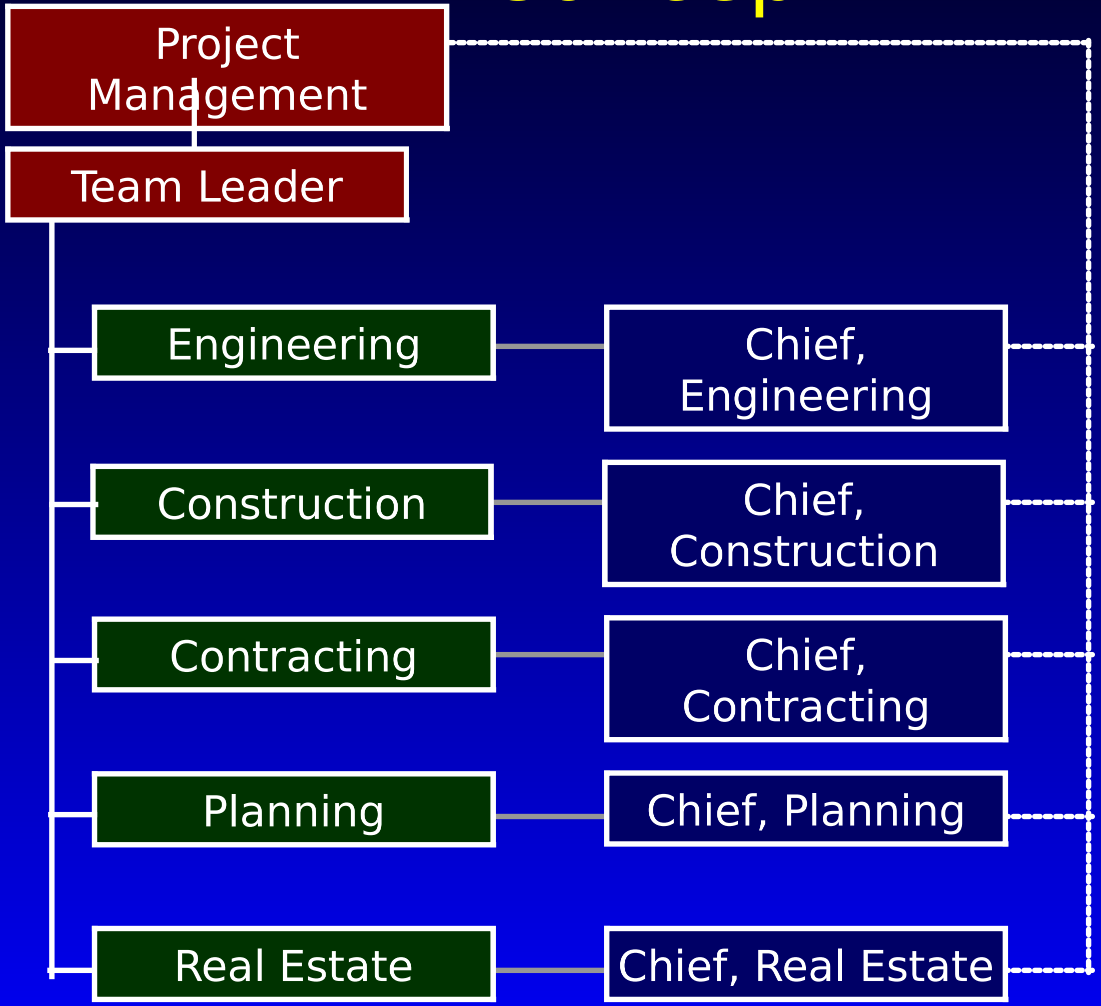
QA Team Leader

LM

Notification-Activation-Deployment

- HQ USACE Operations Center (UOC) will notify and provide direction to:
  - PRT District EOC
  - PRT Division
- PRT must be ready to deploy within six (6) hours of notification.

Life Cycle Management Team Concept



Project Management

Team Leader

Engineering

Chief, Engineering

Construction

Chief, Construction

Contracting

Chief, Contracting

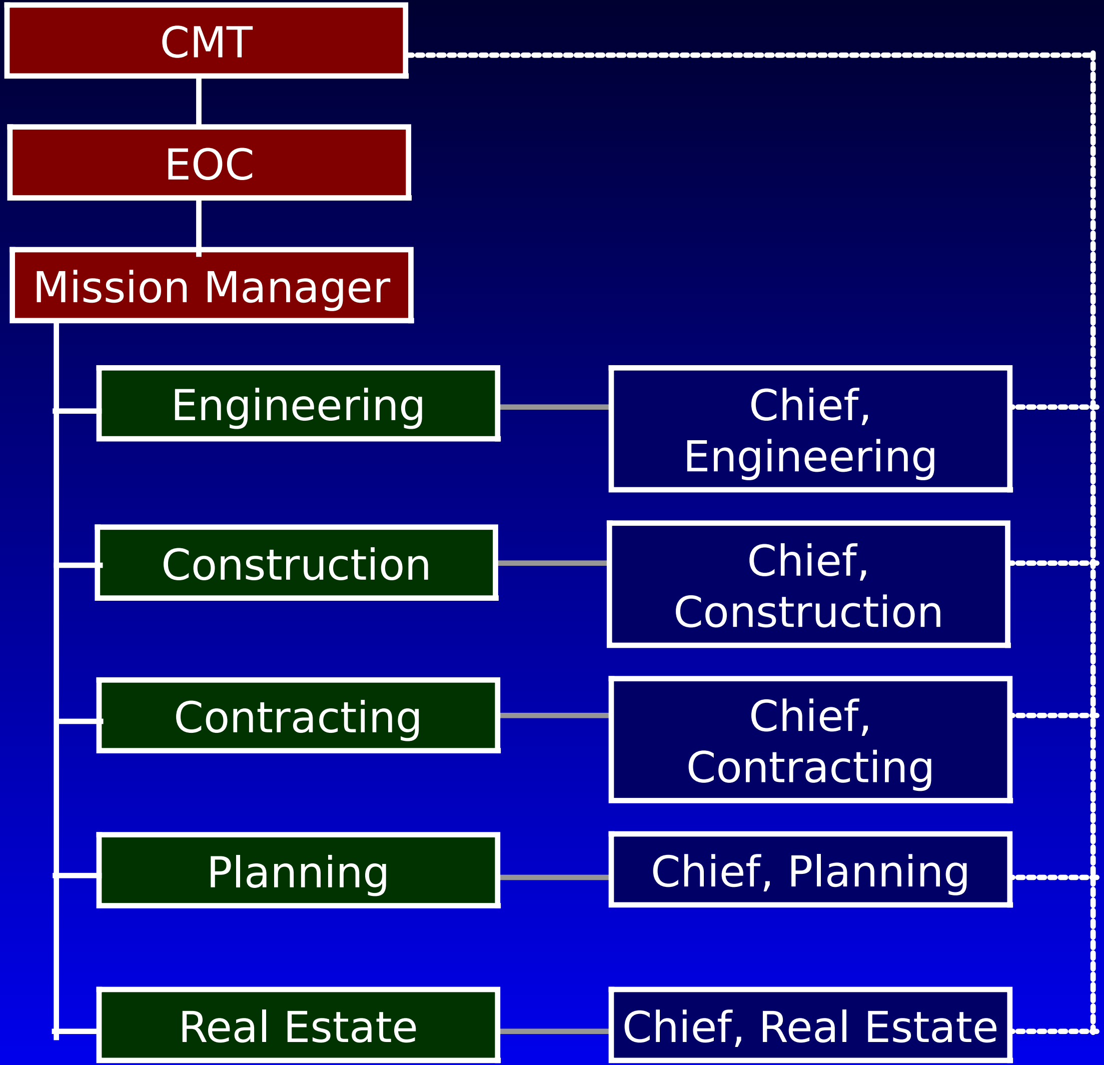
Planning

Chief, Planning

Real Estate

Chief, Real Estate

PRT Team Concept



CMT
EOC
Mission Manager
Engineering
Chief, Engineering
Construction
Chief, Construction
Contracting
Chief, Contracting
Planning
Chief, Planning
Real Estate
Chief, Real Estate

General Information

- Communications is a necessity.
- Work Environment: Long hours, stressful, fast paced, not optimum conditions with safety and security concerns.
- Regardless of how well contractors are screened, some will be lemons.
- Need a good ball park estimate of the size of the mission to properly staff the mission.
- Even though rushed always allow time for checks and balances.
- Reproduction capabilities: Accessibility for reproduction of drawings and other

Pre-Disaster Planning

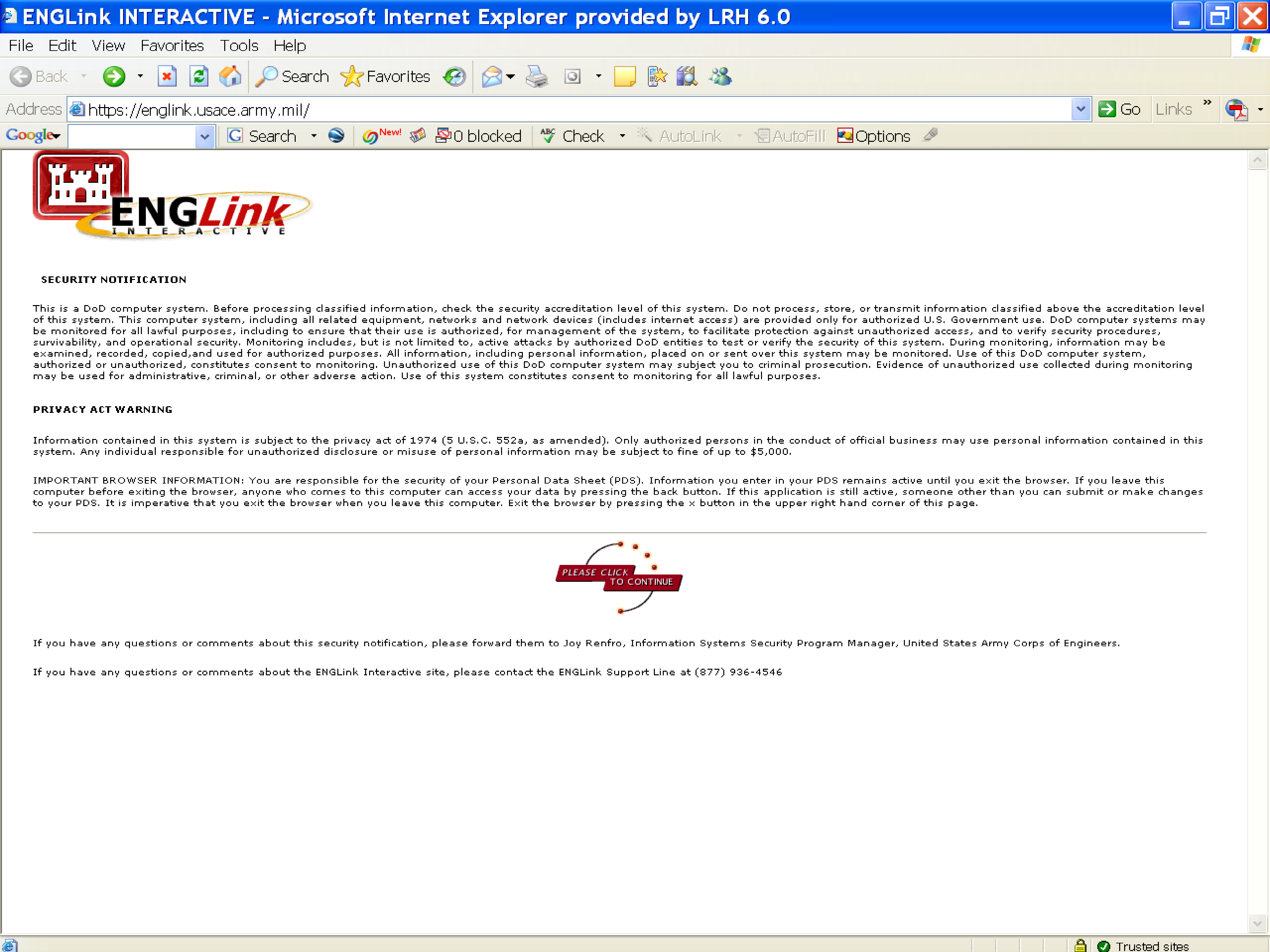
- ASSIGNMENT OF PRT
  - Temporary Housing PRT responsible for initial responses within their Division and outside their Division on a rotational basis.
  - EM primary pre-disaster responsibilities are PRTs planning and training.
- COMPONENTS
  - Lead Division
  - PRT District

Pre-Disaster Planning Con’t

- Data Resources Readiness
  - Mission Guide
  - CD
- Equipment Readiness
  - Design an office equipment checklist
  - Fly-away kit
  - Laptops (email, files)

Pre-Deployment Requirements

- Personal Data Sheet (PDS) completed in Englink
- Medical Screening Form submitted and returned by USACE
- Requested a non-restricted credit card
- Englink Brief


ENGLink INTERACTIVE - Microsoft Internet Explorer provided by LRH 6.0
File Edit View Favorites Tools Help
Back
Search
Favorites
Address https://englink.usace.army.mil/
Go
Links
Google
Search
0 blocked
Check
AutoLink
AutoFill
Options
ENGLink INTERACTIVE
PLEASE CLICK TO CONTINUE
Trusted sites

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If you have any questions or comments about the ENGLink Interactive site, please contact the ENGLink Support Line at (877) 936-4546

Housing Mission

- Provide technical assistance.
- Haul and install travel trailer or mobile home to individual sites and group sites.
- Design and construct Emergency Group Sites.
- Design and construct Mobile Home Group Sites.
- Repair Critical Public Facilities.

Direct Housing Operations Support (DHOPS)

- Pre-Placement Interview
- Site Inspection
- Work Order
- Set up and installation
- Ready for Occupancy
- Lease
- Recertification
- Vacate, including Sales

Team Leaders, Action Officers and Subject Matter Experts @ JFO

Disaster Assessment

- INITIAL
  - Estimate of immediate needs.
  - The initial assessment is accomplished by the Rapid Needs Assessment Team.

Strike Team

(FEMA, CORPS, STATE, LOCALS)

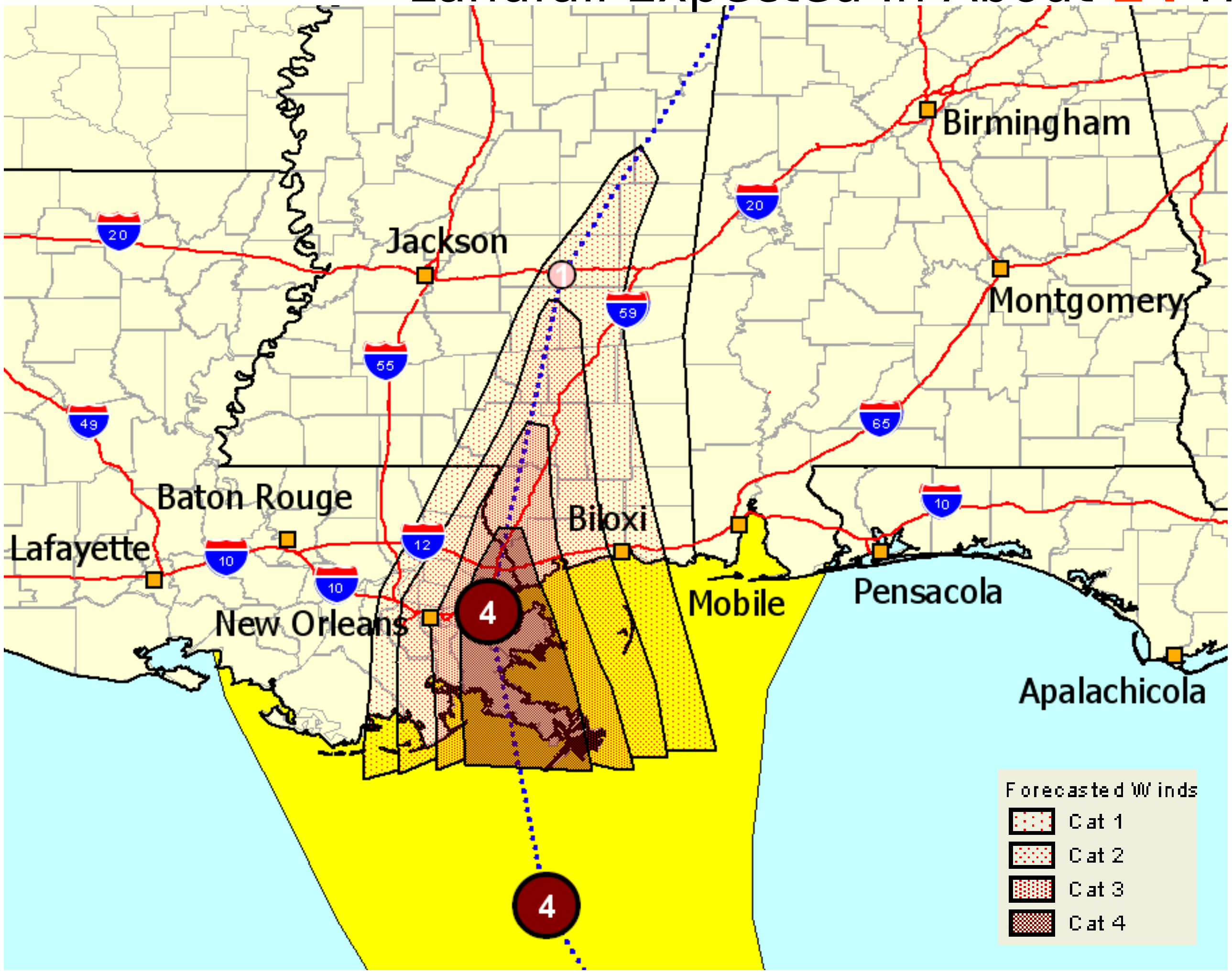
Disaster Assessment (Cont.)

- FOLLOW-ON ASSESSMENT
  - Estimate of damaged structures and necessary resources required to accomplish the mission.
  - Assessment accomplished by the PRT and includes:
    - Number of families requiring temporary housing (FEMA/State/County or windshield surveys).
    - Hurricane Model
    - Potential number of existing, individual and group sites.
    - Potential location of sites

Hurricane Katrina Wind Distribution

Landfall Expected In About **24** Hours

For Official Use Only!


Birmingham
Jackson
Montgomery
Baton Rouge
Lafayette
Biloxi
New Orleans
Mobile
Pensacola
Apalachicola
20
20
59
55
49
65
10
12
10
10
1
4
4
Forecasted Winds
Cat 1
Cat 2
Cat 3
Cat 4

Most Probable Landfall Wind Distribution

This model is based on a Category 4 storm making landfall in near proximity to New Orleans, LA.

Information provided on this page displays a Category 4 storm making landfall near New Orleans, LA. These projections are based on information from the NHC ***(0500 EDT 08/28/2005)*** forecast.

Details about this model may be obtained at https://englink.usace.army.mil or contact ENGLink at 1-877-936-4546

US Army Corps of Engineers

Hurricane Katrina Wind Fields

Generated By:
Terry Siemsen, LRL 0600 EDT 08/28/2005

Sources:
HURREVAC
LRL-DEBRIS

End State

- Mission termination occurs when FEMA in coordination with the State determines the requirement for temporary housing has been full filled.

JFO Housing Task Force

JFO Meeting for Housing Mission

- ✓ Try to get all the team members to the FEMA / State / COE to meeting. Use the examples of previous Management Plans. Goal is to define roles and responsibilities. All parties need to sign the final version.
- ✓ Remember this is a forum of interested parties but few understand the roles of each other and each has slightly different expectations. Explain your role and how you came to help.
- ✓ Provide leadership/management and service role. Be patient and polite. Excellent opportunity for developing skills in communications, public relations, and leadership by being active in meeting but not domineering.

JFO Meeting for Housing Mission Cont

- Peer Contacts: Opportunity to network with your peers in the Government and private sector, allowing sharing of ideas and solutions to many technical and professional issues. Learn the roles of members present.
- Don’t obligate your team for something they cannot deliver.
- Leave meeting with a clear understanding of what is expected. And distribute copies of the agreed upon plan.

Action Officer Plans

- Housing Management Plan
  - FEMA
  - State/Local Governments
- Mission Execution Plan
  - FEMA
  - State/Local Governments
- Close-out Plan
  - FEMA
  - USACE

TEMPORARY HOUSING MANAGEMENT PLAN
BETWEEN
THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA),
THE WEST VIRGINIA OFFICE OF EMERGENCY SERVICES (OES),
AND
THE U.S. ARMY CORPS OF ENGINEERS (USACE)

1. MISSION

Provide temporary housing in the form of mobile home parks for the victims of the Memorial Day Flooding. This will include design and construction of mobile home parks including utilities, pads, and roadways. The work will be done in accordance with federal, state and local laws and regulations.

2. PRE-MISSION EFFORTS

Potential sites for the mobile home parks are being identified by the county and the West Virginia Housing Development Fund (WVHDF) and then evaluated by USACE and FEMA. Final approval to construct a site will be made by FEMA in coordination with the State, represented by the Office of Emergency Services (OES). Final approval to construct a site will be made by FEMA in coordination with WVOES.

3. DESCRIPTION OF MISSION

a) *Required activities*. Designing and constructing temporary mobile home parks, obtaining permits and environmental clearance, constructing sewer, water, power, gas, telephone, and cable utilities. It is anticipated that the requirement will consist of developing 1-4 sites to accommodate 300 units.

b) *Environmental Concerns*. FEMA will conduct the site Environmental Assessment prior to the start of construction. All sites will need to be reviewed and coordinated for NEPA compliance under FEMA regulations and the Stafford Act. This will include obtaining clearance for culturally sensitive areas and hazardous/toxic wastes. This will also include compliance with NPDES discharge permits for any sewage treatment systems constructed by USACE.

c) *Design*. USACE contractor will complete the final grading and utility design based on the layout provided by USACE and approved by FEMA and the State (as represented by OES and the WVHDF). FEMA will provide USACE the manufacturer name and model of the temporary housing units to be used.

d) *Site Construction*. USACE contractor will construct the parks on one or more sites as directed. Since time is critical, Quality Assurance and design compliance will be continual between representatives of FEMA, the State and USACE.

Access to sites will be open to all agencies and property owner, but visitors must check in with the USACE on-site representative. NO AGNECY shall provide direction or instruction to the site contractor except USACE. All visitors must have required safety equipment

e) *Mobile Home Purchase and Installation.* FEMA will acquire the mobile homes. In coordination with USACE, the FEMA contractor will install the mobile home on the pad, including skirting and tie-downs, and hook up of all utilities in the location as specified in the design. Installation will be in accordance with the West Virginia Manufactured Housing Licensing Board Standards. FEMA is responsible for the inspection of all trailers. Individual power connections and the setting of meters will be done by FEMA and the appropriate utility. Final leveling and graveling of all access roads will be done after trailers are set.

f) *Construction Site Clean-up.* The USACE contractor is responsible for site clean up prior to final acceptance inspection by FEMA.

g) Site Turn-Over/Acceptance. As the sites are completed, FEMA and the State will inspect them and if in conformance with the contract, will take acceptance of the sites. USACE will transfer them to FEMA and the State for assignment to individual families.

4. METHOD OF CONTRACTING

USACE will negotiate a design-build contract with one or more of its Indefinite Delivery/Indefinite Quantity (IDIQ) contractors capable of completing the work in the time required.

5. PERMITS

USACE will acquire all state and local permits. WVOES will provide the name and address to be used as the owner on the permits.

6. RIGHTS OF WAY

The State will acquire the necessary rights of way and releases.

7. RESPONSIBIITIES

a) USACE
    i. Design and construct site
    ii. Secure contractor to execute the mission
    iii. Coordinate with FEMA, state and local agencies
    iv. Obtain all permit for utilities
    v. Coordinate mobile home park design with FEMA

b) WVOES
    i. Acquire the sites
    ii. Expedite permits and provide rights of way for selected properties
    iii. Coordinate addresses for mail service
    iv. Operate and maintain sites for duration of use
    v. Responsible for coordination of close-out of site

c) FEMA
    i. Coordinate mission with USACE and WVOES
    ii. Provide funding for mission execution as authorized pursuant to the Stafford Act.
    iii. Coordinate mobile home park design with USACE
    iv. Assign trailers to individual families pursuant to the Stafford Act
    v. Prepare environmental assessment

8. REPORTING

USACE will provide the FEMA Housing Program Director progress reports as requested.

9. AGREEMENT

The intent of this agreement is to clearly define and agree to the responsibilities of USACE, FEMA, and WVOES with respect to the FEMA-1522-DR-WV temporary housing mission. All parties agree to support this partnership, the concept of operations for the mission, and the attached schedule for completion of this emergency mission.

____
LOUIS H. BOTTA
FEDERAL COORDINATING OFFICER
FEMA

____
STEVEN S. KAPPA
STATE COORDINAITNG OFFICER
WVOES

____
CARL MILLER
ESF3 TEAM LEADER
USACE

Locals

- Coordinate early with local engineers and inspectors (water, sewer, electrical and gas).
- Get copy of local codes and make sure design meets or exceeds local codes if local codes exceed national codes.
- Check to see if community water systems meet the State criteria .
- Check before designing group sites.
- Must be able to accommodate planned development

Mission Manager

- Project Manager @ RFO/District
- Coordinates mission with Action Officer daily
- Works for District EOC
- Develops staffing plan
- Develops execution plan:
  - Timeline.
  - Mission milestones/EEIs for SITREP.
  - Daily team meeting
  - Identifying actions required to phase down personnel and contracting efforts until completion of mission.
- Identify estimated times for compiling and

submitting all mission

Reporting

- Mission manager
  - Responsible for reporting all required mission-related information in the SITREP.
  - The RFO SITREP will be the sole report to higher headquarters and other agencies.
- Essential Elements of Information (EEI) in the daily SITREP.
  - Mission amount
  - Number of pads
  - Number of units and types (trailers/mobile homes)
  - Percent complete
  - Projected completion date
  - Number of units turned over to FEMA

Temporary Housing Team Report **5/23/2006**

Work Complete as of COB 5/23/2006

Staging Area Status (Airport/Casino Site)	Received Today	Departed Today	Total Received	Total Departed	Staging Inventory	Deployable Units
Travel Trailers	-	-	74	41	33	33
Accessible Travel Trailers	-	-	17	4	13	12
Mobile Homes	-	2	96	39	57	44
Accessible Mobile Homes	-	-	24	5	19	11
Park Models	-	-	2	1	1	-
Accessible Park Models	-	-	18	5	13	13
Total Inventory	**-**	**2**	**231**	**95**	**136**	**113**

Individual Sites Haul & Install Mission Status	City of Caruthersville				Pemiscot County				Dunklin County				Previous Total				Today's Change				Current Total			
	Site Inspections Received	Site Inspections Completed	Work Orders Issued	Lease Ins	Site Inspections Received	Site Inspections Completed	Work Orders Issued	Lease Ins	Site Inspections Received	Site Inspections Completed	Work Orders Issued	Lease Ins	Site Inspections Received	Site Inspections Completed	Work Orders Issued	Lease Ins	Site Inspections Received	Site Inspections Completed	Work Orders Issued	Lease Ins	Site Inspections Received	Site Inspections Completed	Work Orders Issued	Lease Ins
Travel Trailers	-	-	40	40	-	-	3	2	-	-	-	-	-	-	43	41	-	-	-	1	-	-	43	42
Mobile Homes	-	-	37	22	-	-	12	7	-	-	1	1	-	-	49	25	-	-	1	5	-	-	50	30
Park Models	-	-	1	1	-	-	2	2	-	-	2	2	-	-	5	5	-	-	-	-	-	-	5	5
Accessible Travel Trailers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
In Process of Determination	*85*	*80*	-	-	*33*	*30*	-	-	*4*	*4*	-	-	*120*	*114*	-	-	*2*	-	-	-	*122*	*114*	-	-
Total	**85**	**80**	**78**	**63**	**33**	**30**	**17**	**11**	**4**	**4**	**3**	**3**	**120**	**114**	**97**	**71**	**2**	**-**	**1**	**6**	**122**	**114**	**98**	**77**

** Currently, on average, 2.5 units are leased-in per day.*

** One lease-in was left off of yesterday's report and has been accounted for here. There were actually only five (5) lease-ins yesterday.*

Total Lease Ins To Date **77 Units**

Total Anticipated **98 Units**

Haul and Install Mission Complete **78.6%**

Group Site Haul & Install Mission Status	City of Caruthersville				Pemiscot County				Dunklin County				Previous Total				Today's Change				Current Total			
	Site Inspections Received	Site Inspections Completed	Work Orders Issued	Lease Ins	Site Inspections Received	Site Inspections Completed	Work Orders Issued	Lease Ins	Site Inspections Received	Site Inspections Completed	Work Orders Issued*	Lease Ins	Site Inspections Received	Site Inspections Completed	Work Orders Issued*	Lease Ins	Site Inspections Received	Site Inspections Completed	Work Orders Issued*	Lease Ins	Site Inspections Received	Site Inspections Completed	Work Orders Issued	Lease Ins
Mobile Homes*	*N/A*	*N/A*	*133*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*133*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*133*	*N/A*
Total	**-**	**-**	**133**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**133**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**133**	**-**

** Units will be leased-in upon completion of the Group Site Phases.*

Total Lease Ins To Date **- Units**

Total Anticipated **133 Units**

Haul and Install Mission Complete **0.0%**

Temporary Housing Court 1635, 133 Units	% Complete	Days to Completion
Plans, Specs, and NTP	100%	0 days
Phase I (16 Units)	85%	10 days
Phase II (52 Units)	60%	15 days
Phase III (65 Units)	35%	20 days

Total Percent Design and Construction Complete: **55.3%**

Lease Ins (i.e. Occupancy) **- of 133**

Public Affairs

- PA should be involved from start and proactive in supporting temporary housing mission.
- Activities
  - Prepare notices of work crew locations
  - Eligibility criteria
  - Location of group sites and schedules
  - Prepare news releases in advance with focus on radio announcements
- Photographer required to provide picture documentation of the Corps mission accomplishments.

Design and Construction Supervised by:
Temporary Housing
Winchester Estates
FEMA
Company, Inc.
FEMA
Best wishes!
Bob Wise

After Action

- Important for any mission
  - Self assessment and review
    - Team performance during event
    - Development of written lessons learned
    - Analysis is the responsibility of each team member
    - Provides memory of successes and failures
      - Integrate into training
      - Unbiased observations and recommendations will be solicited by the Independent Assessment Team (IAT) Team during and after the event

Site Engineer

- Evaluate site
- Organize software and equipment support
- Identify design team (electrical, environmental, CADD, Specs, Cost
- Complete survey
- Complete Scope of Work
- Complete drawings/Contract Document

Temporary Housing
Planning Response Team (PRT)

Site Engineer and Lead Designer
Checklists

Coordinate With		**Task Item**	**Completed**
Action Officer/Mission Manager		Understand Scope of Work in Initial Tasker	
		Define Mode of Accomplishment (MOA) for Design (AE, PRT, Other)	
Home District		MOA for Field Data Collection (Survey, Soils, Utility)	
Home District		MOA for CADD/Tech Support	
Home District		MOA for Drawing Publication	
IM/Logistics Support		Identify/Check Field CADD Equipment	
Local/State Building Officials		Code Requirements for Trailer Sites - General, Layout & Amenities - Fire - Utilities - Erosion /Sedimentation/Storm water	
Action Officer/Mission Manager/CT		(as req'd) Technical Input, Support Negotiation of AE Services Contracts	
Action Officer/Mission Manager		Source and Specs on Trailer Units	
FEMA, State, ESF#3 Thru Action Officer/Mission Manager		Potential Site Assessments/Recommendations	
FEMA, State, ESF#3 Thru Action Officer/Mission Manager		Confirm Scope of Corps Mission at each site	
FEMA, Local/State Building Officials		Technical Requirements for Housing Design. Establish all design criteria for site layout, provided amenities, utilities, etc, beginning at the Initial Project Team Meeting.	
RE, ESF#3, Mission Manager		Identify Property Lease Terms which affect Technical Design	
Utility Companies, Design Team		Define Process and Responsibility for Design and Installation of Utility Service - Water - Wastewater - Electrical - Telephone - Cable TV - Gas - Solid Waste Collection	
Postmaster, Thru Mission Manager		Define Mail Service Requirements	

Lead Design Engineer

Coordinate With		**Task Item**	**Completed**
Mission Manager/Action Officer		Schedule, logistics of Intermediate Design Reviews	
Design Team		Assure Incorporation of Review Comments	
Resident Engr/Mission Mgr/Design Team		Define Content and required level of detail for Construction Drawing Set	
		Lead the FTR/BCOE Review of Construction Documents	
Mission Manager/Home District		Establish and execute process for affixing authorized signatures to Contract Drawings and Government Estimate	
Mission Manager/Design Team		Incorporate Lessons learned from initial site(s) into subsequent design cycles.	

One Corps serving the Army and the Nation

US Army Corps of Engineers

Mission Milestones

Event =>	2-Apr	
	3-Apr	
	4-Apr	
	5-Apr	
	6-Apr	
	7-Apr	<= ESF#3 Cell Arrives
	8-Apr	
	9-Apr	<=Housing Management Team Arrives
	10-Apr	
	11-Apr	<=Housing PRT arrives
	12-Apr	
President Declares Disaster =>	13-Apr	MOB Center- Trailers Inspected **<=Contract Statement of work and Specifications prepared Local District (SWL EM, CT & E&C)**
	14-Apr	<=Haul & Install Mission Exec. Issued to Corps
	15-Apr	Pad Assement - Intial survey in Marmaduke
	16-Apr	
	17-Apr	**<= Proposals Received on Haul & Install Mission**
	18-Apr	
	19-Apr	**<= Haul & Install Contract #1 Awarded by Corps**
	20-Apr	MH- Released from Staging area for site placement
	21-Apr	
	22-Apr	<= First MH RFO'd & Leased to Applicant by FEMA
	23-Apr	Pad Asssement- Greene County- +/- 60 sites identified
	24-Apr	
	25-Apr	
	26-Apr	
	27-Apr	
	28-Apr	<= 10th MH RFO'd by Corps
	29-Apr	
	30-Apr	
	1-May	
	2-May	<= 20th MH RFO'd by Corps
	3-May	
	4-May	
	5-May	

SITE ENGINEER FLY AWAY KIT

Hardware

- ☐ Carrying Case
- ☐ Laptop Computer—CAD capable – 300 MHz or better.
- ☐ Internal 56KB Fax/Modem, including adapters and cable for connection to phone line
- ☐ Portable Scanner
- ☐ Portable Printer
- ☐ Cell Phone—with plug connections necessary to provide fax connection
- ☐ Cellular phone's charger, spare battery or car adapter
- ☐ Digital Camera—including adapter for download to laptop computer
- ☐ Three-prong to two-prong AC receptacle adapter

Optional

  - ☐ DC to AC adapter and cables
  - ☐ Laptop Battery Charger
  - ☐ External Hard Drive
  - ☐ Extra Laptop battery
  - ☐ RJ-11 coupler (to connect two short telephone cables together)
  - ☐ RJ-11 Splitter (to connect two devices to one jack)
  - ☐ AC power extension cord

Carrying case for flyaway should be of rugged construction, specifically designed to protect the computer equipment from damage in travel. All items in the kit should fit into a single carrying case, small enough to taken as a carry-on to any commercial air carrier.

Software for the flyaway should be pre-loaded before departure. The CDs for critical software applications (operating system, office application suite, CADD software) should be included with the kit, in case a system crash requires that software be reloaded.

Software

- ☐ **Microsoft Windows Operating System**
- ☐ **MicroSoft Office Professional Suite (including Outlook Mail)**
- ☐ **MicroStation**
- ☐ **InRoads IPlot Professional (v.8.0)**
- ☐ **Intergraph InRoads (v.7.x)**
- ☐ WS FTP Software (Communication software)
- ☐ Fax Management Software for Laptop
- ☐ Photo Enhance (or other Photo Management Software)
- ☐ Microsoft Internet Explorer
- ☐ WinZip Software
- ☐ Delphi Formflow

Bold Items require that the application CD-ROMs be included in the flyaway kit

Data Resources

- ☐ District Temporary Housing PRT Resource CD
- ☐ Temporary Housing Mission Guide
- ☐ CCB CD's (Current Version)

Staging Area

- Should be located in disaster area and have sufficient size.
- Check and test trailers.
  - Water lines not connected.
  - Hot water heaters missing, etc.
  - Electrical outlets and lights work.
  - Check for wood chips around gas appliances.
- Coordinate with FEMA Logistics

Haul and Install

Cavalier
1357457

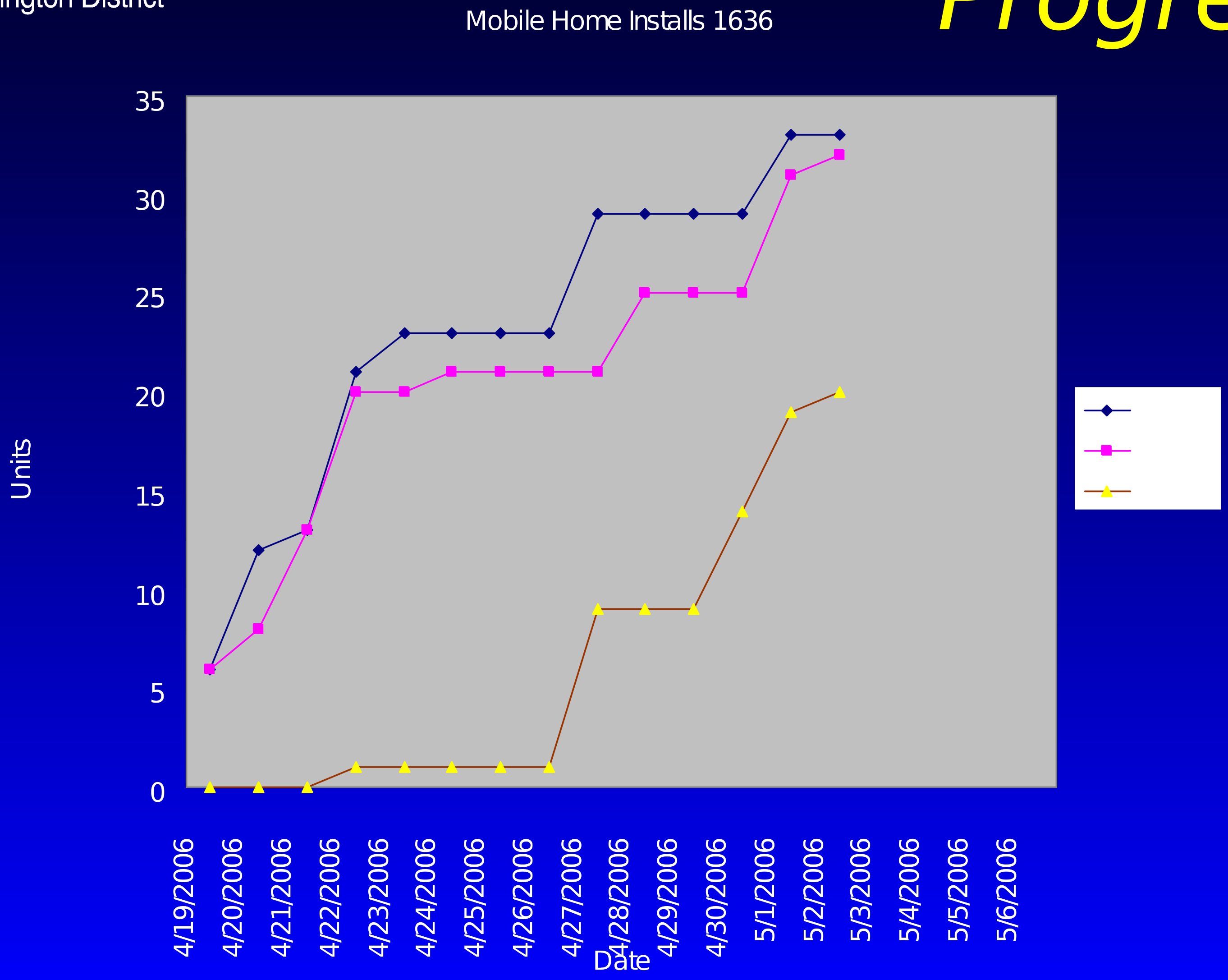
US Army Corps of Engineers
Huntington District

Temporary Housing Alternatives

Private Sites (IA)

Existing Commercial Parks (IA)
W/ Open Pads

Temp Housing Mission Progress



SITE Inspection (SIR)

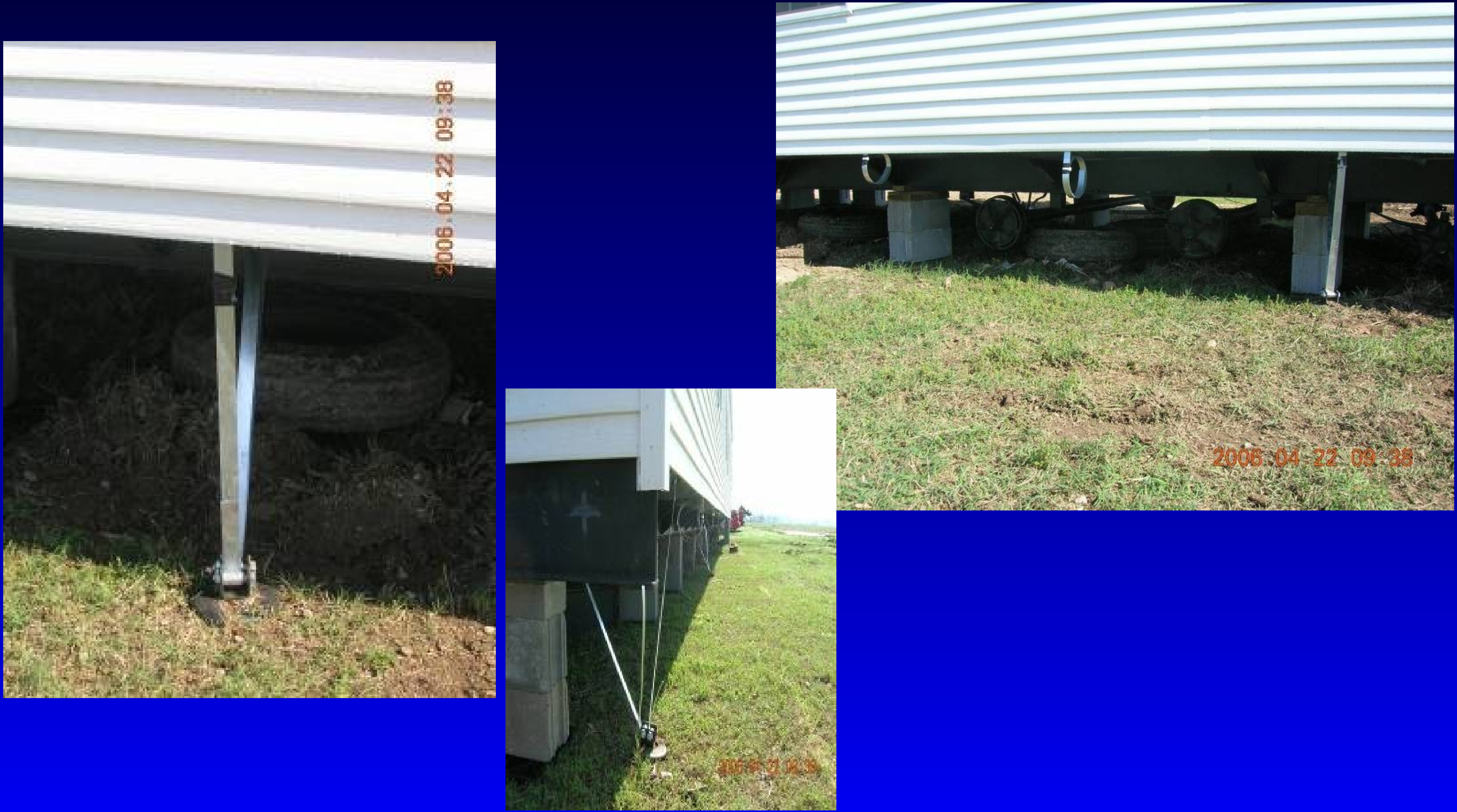
The FEMA/Corps QA inspects the potential site and reports back to FEMA on its feasibility for MH or TT placement

SITE Inspections (Cont)

The Corps Inspectors evaluate the site:

- Debris: Is it safe? What removal needs to be done?
- Utilities-Sanitary facilities Water/Sewer condition or availability
- Power Available Location of overhead Power Lines
- Pad – Condition, overhead power lines, etc.
- Area- Is there room to place MH or TT?

MH are Anchored using Steel straps



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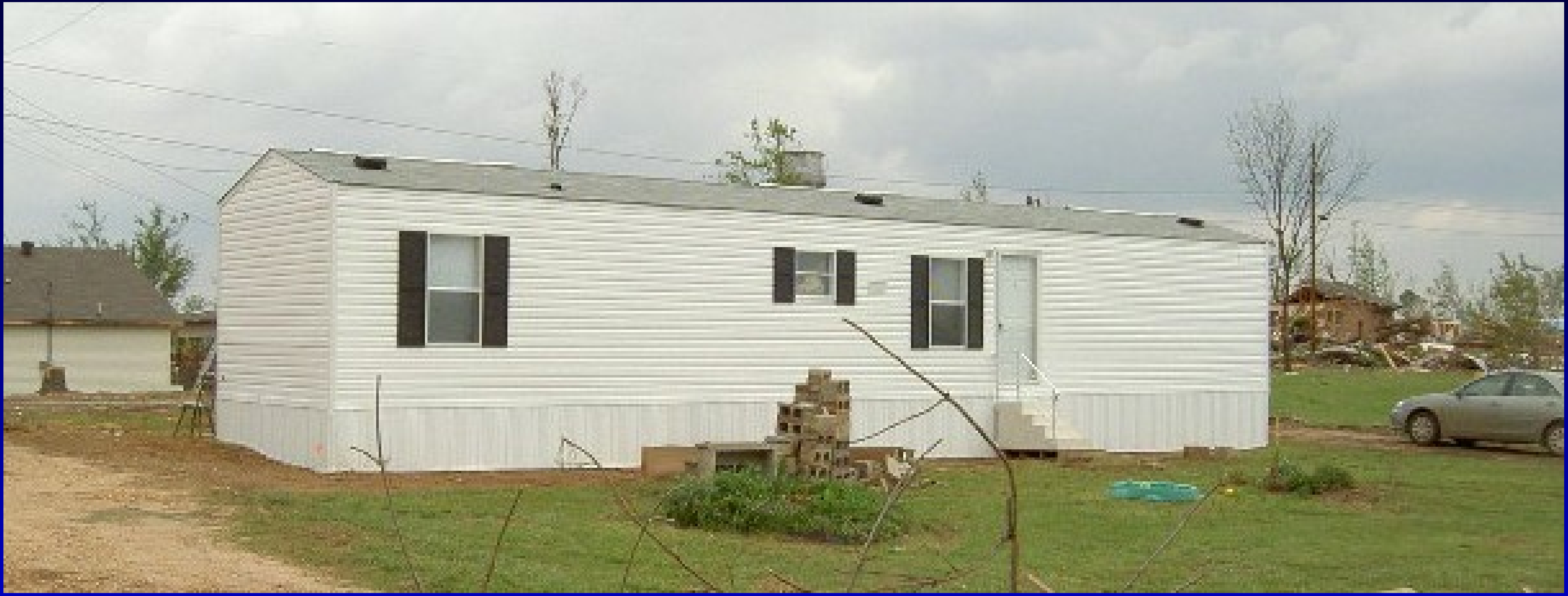
Water and Sewer

Contactor locates existing Water & Sewer connects to the MH or TT

COMPLETED SITE



Typical MH Install on a private site

Housing Mission Execution Timeline Trailer
Existing & Private Home Sites (250 MHs & TTs)

D+69	• *Last Unit turned over to FEMA*
D+17	• *First Unit turned over to FEMA*
D+16	• *First Unit Ready for Occupancy*
D+13	• *First Unit delivered*
D+12	• USACE issues Task Orders (TO) to contractor
D+11	• FEMA Trailers arrive at Mob Center • Notice to proceed issued to contractor
D+9	• QA Inspectors deployed (National Support Templates)
D+8	• Award
D+6	• Advertise
D+5	• Design/Construction/Support #2 deployed
D+4	• Scope of Work • RE obtains Right of Entry/Save & Hold Harmless
D+3	• Design/Construction/Support Team #1 deployed
D+1	• *FEMA identifies need for Temporary Housing* • *MA Post-Declaration issued*
D-2	• USACE deploys Housing PRT Mgmt Cell
D-3	• Mission Assignment (MA) - Pre-Declaration issued • ERT-A activated (ESF #3)
D-4	• ROC activated

Individual Sites

- Individual sites may require permits. Individuals required to obtain permits but may be easier for Corps to obtain and match with FEMA Form 90-1.
- MOU with FEMA on who is responsible for signing FEMA Form 90-1, site inspection (home site and existing sites in trailer parks

Environmental Considerations

- Not waived
  - Threatened and Endangered Species
  - Cultural Resources
  - Wetlands
  - HTRW
  - Erosion Control Permits
  - Tree Preservation / Replacement
- Develop checklist for inspection of potential group sites to include environmental and physical.

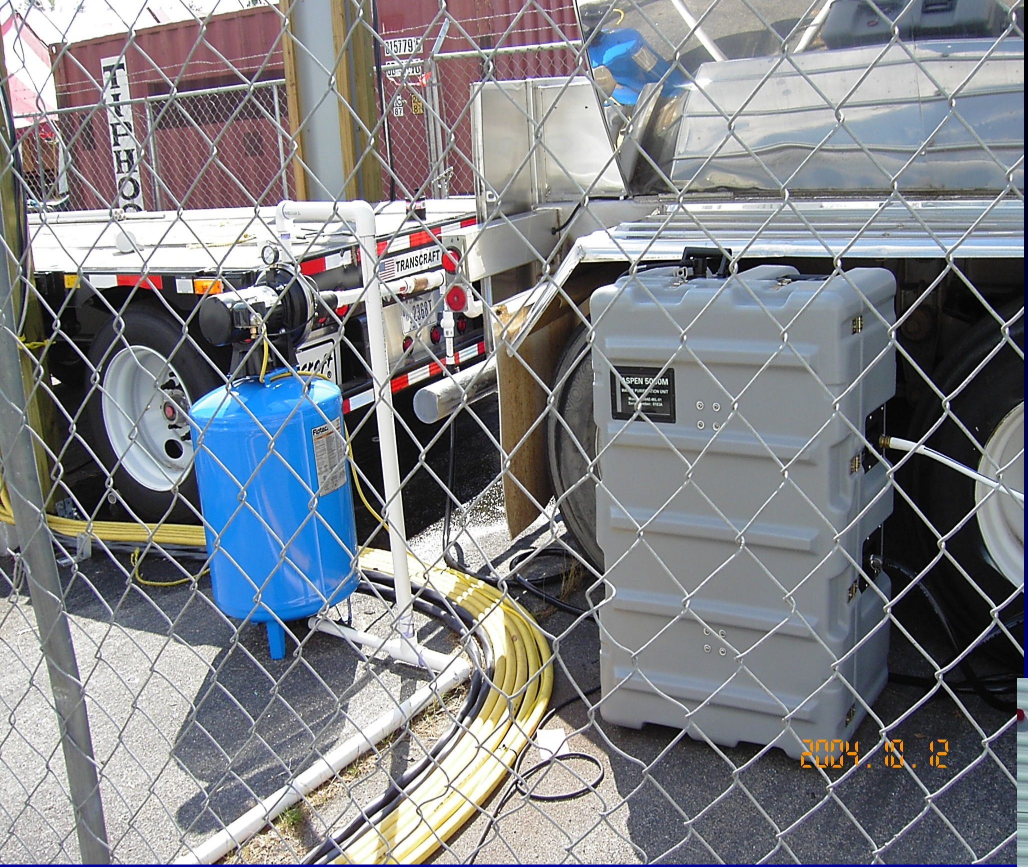
Waivers

- Tap-in fees may or may not be waived.
- Coordinate with ESF#1 for transportation waivers for extra wide loads if required.
- Sewer and Water impact fees
- School system impact fees

Ready for Occupancy

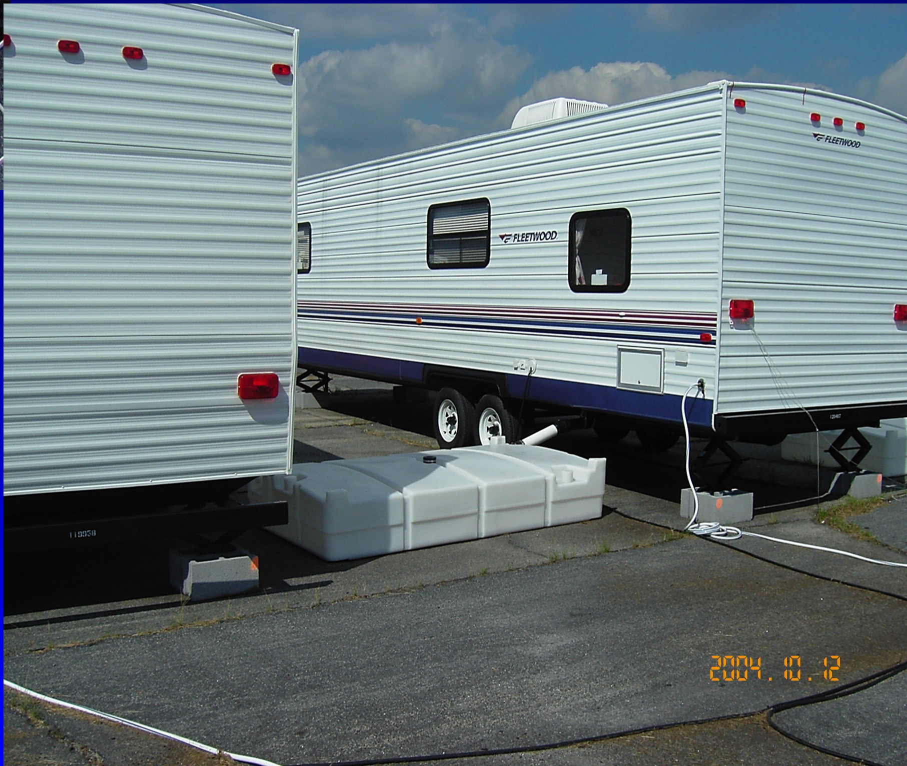
- Early MOU with FEMA on what is ready for turn over.
- Develop turn over checklist with FEMA and State for a clear understanding of expectations.
- Corps makes ready for occupancy then turns over to FEMA.
- Corps is not in the landlord business.
- Develop MOU with FEMA on payment of start up cost for utility service.

EGS Site


ASPEN 5000M
TRANSCRAFT
2004.10.12

Water

Sewage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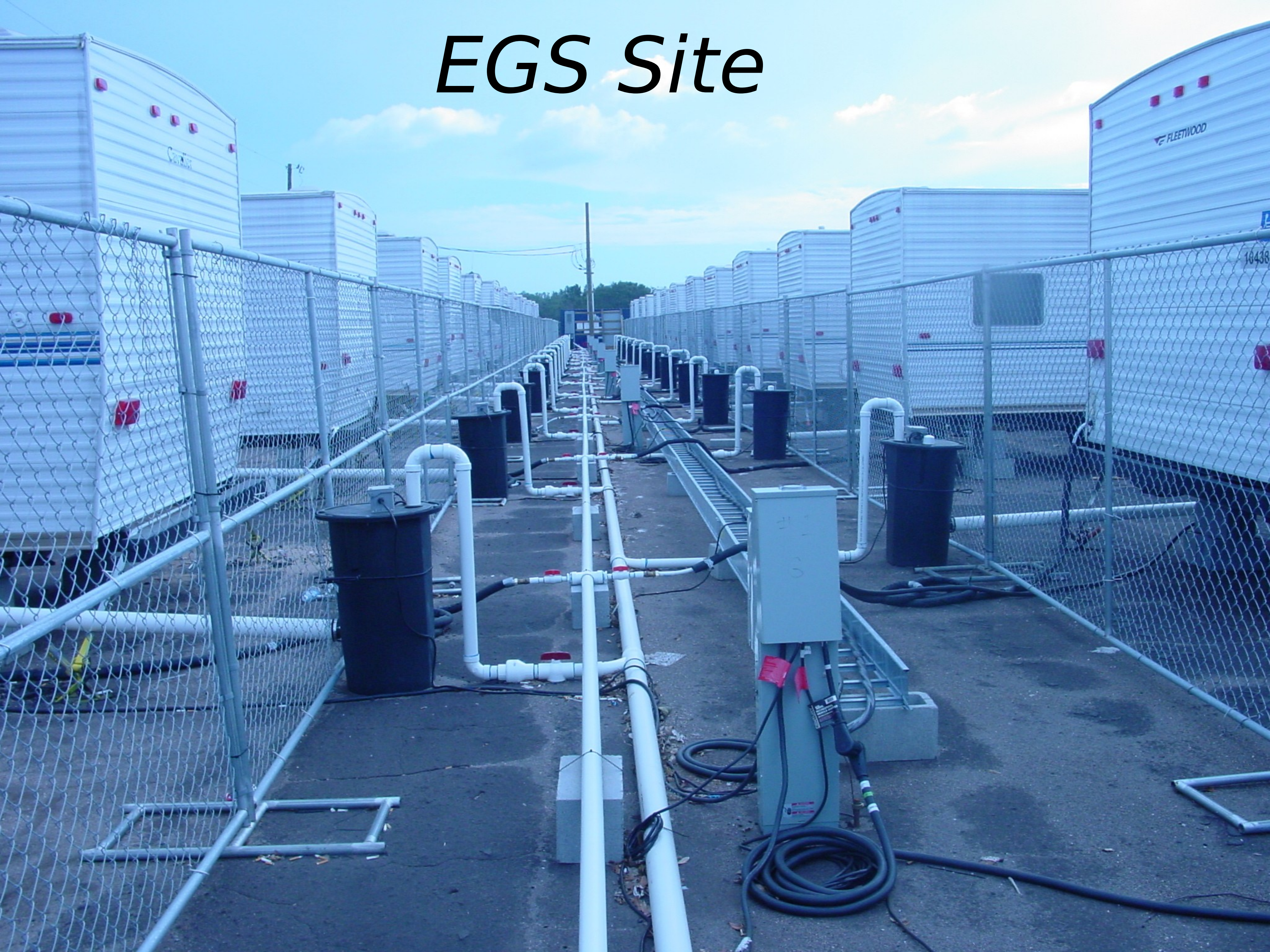
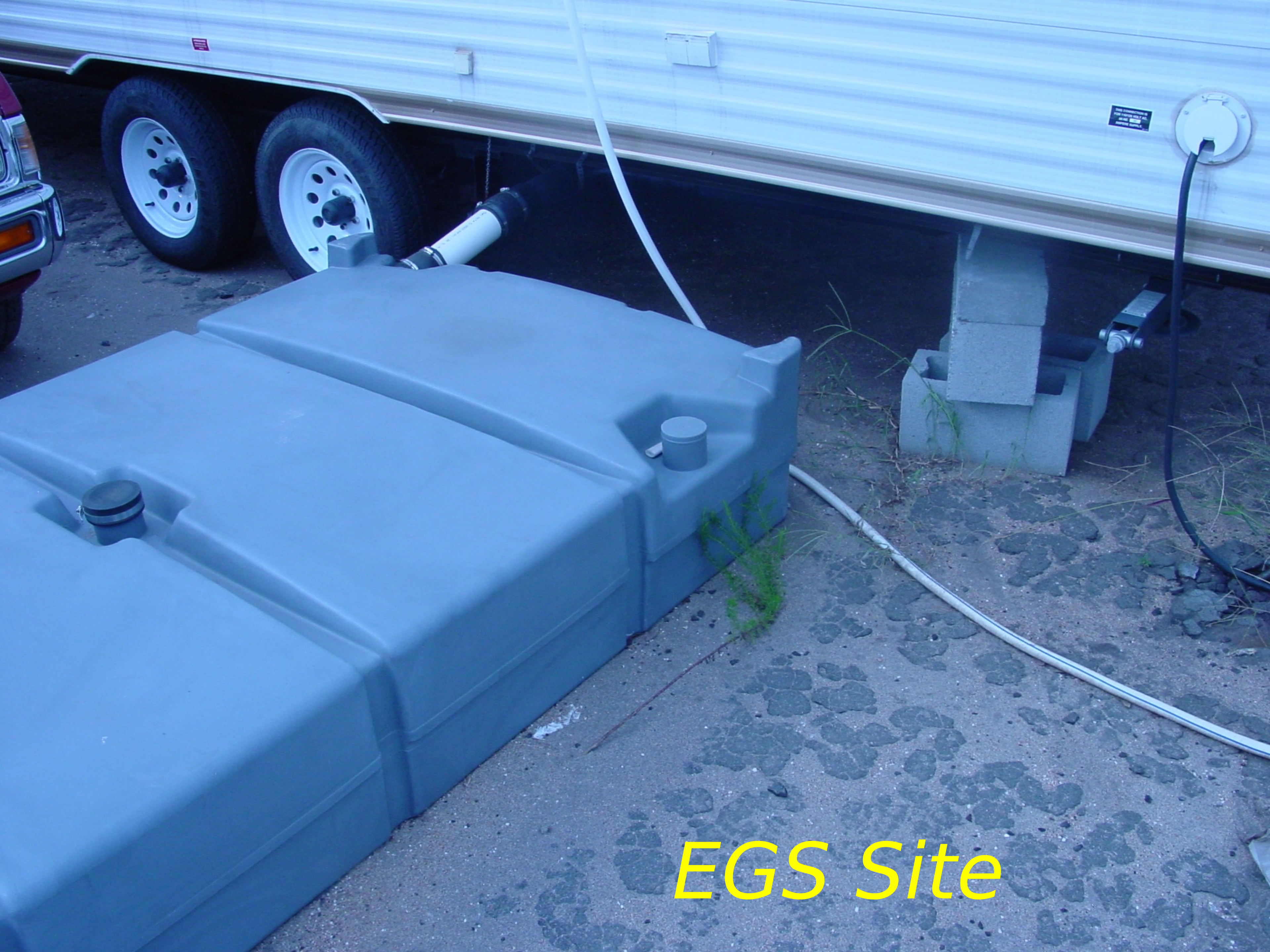
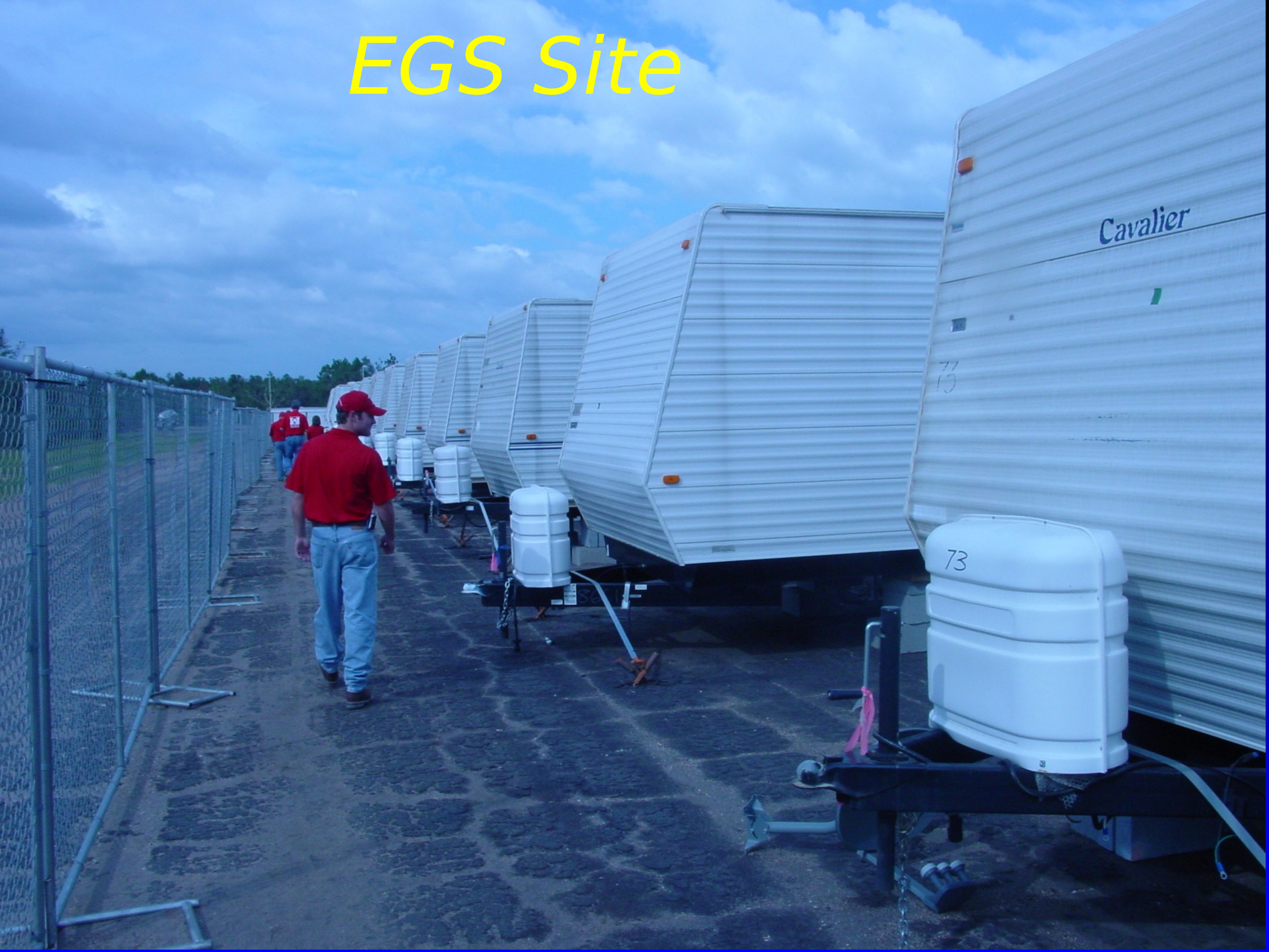
EGS Site


FLEETWOOD
10438



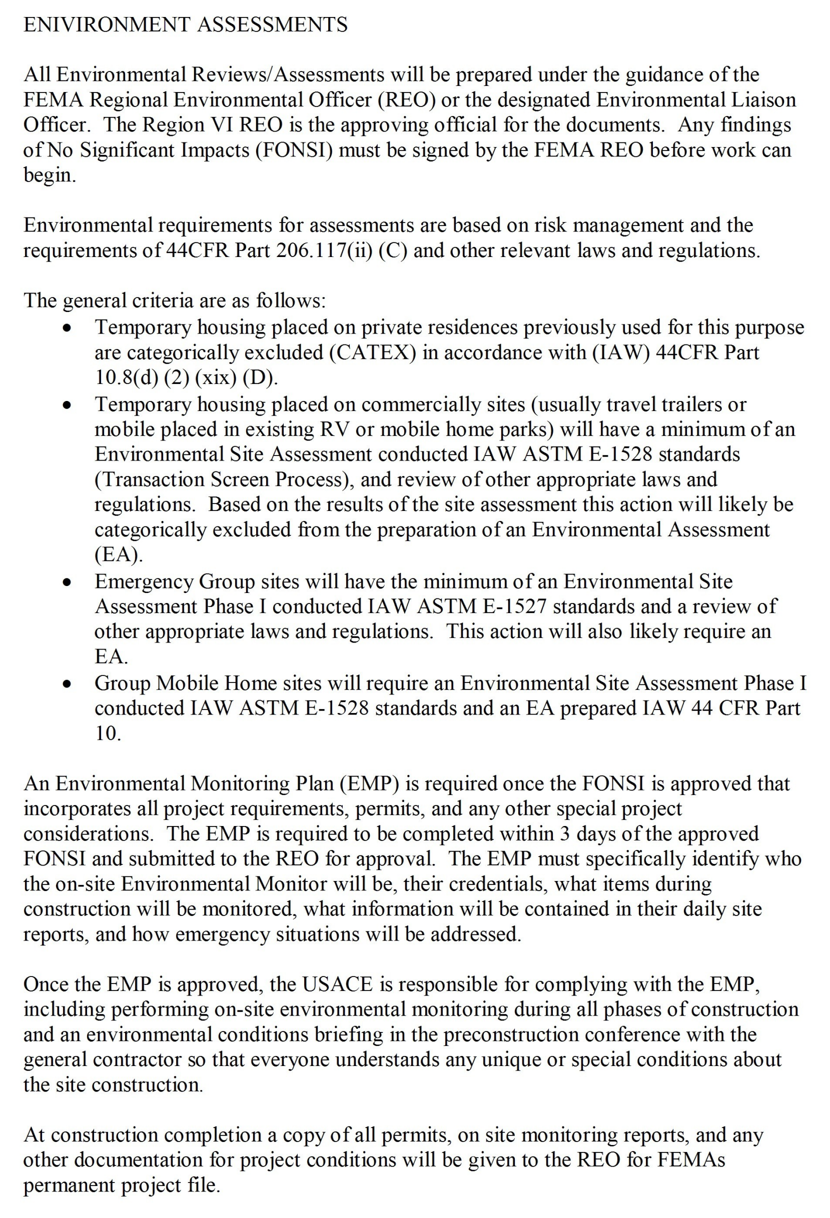
EGS Site

EGS Site


Cavalier
73
73

Housing Mission Execution Timeline New Site 100 Units CONUS

D+59	• *Construction completed*
D+25	• Contractor mobilizes and begins work
D+22	• Notice to proceed
D+20	• Contract Awarded
D+19	• QA Inspectors deployed (National Support Templates)
D+18	• Bid Opening
D+15	• FEMA trailers arrive at Mob Center
D+14	• Advertise Contract
D+13	• Scope of Work prepared
D+12	• Design
D+11	• FEMA/State obtain Lease from owner
D+9	• Survey • Coordinate with local governments completed
D+8	• Environmental Clearances • Design/Construction/Support Team #2 deployed
D+5	• Site Inspection
D+4	• RE obtains Right of Entry/Save & Hold Harmless
D+3	• Design/Construction/Support Team #1 deployed
D+1	• *FEMA identifies need for Temporary Housing* • *MA Post-Declaration issued*
D-2	• USACE deploys Housing PRT Mgmt Cell
D-3	• Mission Assignment (MA) - Pre-Declaration issued • ERT-A activated (ESF #3
D-4	• ROC activated



ENIVIRONMENT ASSESSMENTS

All Environmental Reviews/Assessments will be prepared under the guidance of the FEMA Regional Environmental Officer (REO) or the designated Environmental Liaison Officer. The Region VI REO is the approving official for the documents. Any findings of No Significant Impacts (FONSI) must be signed by the FEMA REO before work can begin.

Environmental requirements for assessments are based on risk management and the requirements of 44CFR Part 206.117(ii) (C) and other relevant laws and regulations.

The general criteria are as follows:

- Temporary housing placed on private residences previously used for this purpose are categorically excluded (CATEX) in accordance with (IAW) 44CFR Part 10.8(d) (2) (xix) (D).
- Temporary housing placed on commercially sites (usually travel trailers or mobile placed in existing RV or mobile home parks) will have a minimum of an Environmental Site Assessment conducted IAW ASTM E-1528 standards (Transaction Screen Process), and review of other appropriate laws and regulations. Based on the results of the site assessment this action will likely be categorically excluded from the preparation of an Environmental Assessment (EA).
- Emergency Group sites will have the minimum of an Environmental Site Assessment Phase I conducted IAW ASTM E-1527 standards and a review of other appropriate laws and regulations. This action will also likely require an EA.
- Group Mobile Home sites will require an Environmental Site Assessment Phase I conducted IAW ASTM E-1528 standards and an EA prepared IAW 44 CFR Part 10.

An Environmental Monitoring Plan (EMP) is required once the FONSI is approved that incorporates all project requirements, permits, and any other special project considerations. The EMP is required to be completed within 3 days of the approved FONSI and submitted to the REO for approval. The EMP must specifically identify who the on-site Environmental Monitor will be, their credentials, what items during construction will be monitored, what information will be contained in their daily site reports, and how emergency situations will be addressed.

Once the EMP is approved, the USACE is responsible for complying with the EMP, including performing on-site environmental monitoring during all phases of construction and an environmental conditions briefing in the preconstruction conference with the general contractor so that everyone understands any unique or special conditions about the site construction.

At construction completion a copy of all permits, on site monitoring reports, and any other documentation for project conditions will be given to the REO for FEMAs permanent project file.

EA Link

Group Park Sites

	Pads
◆ Parks Manor –	41
◆ R. A. West Memorial -	16
◆ Willis Court -	7
◆ Daniels Memorial Park -	47
◆ Winchester Estates	47
Total	158

Started in June; completed in October

Special Considerations

- Who purchases trailers
- Storm retention structures
- Pad size (asphalt, concrete, gravel)
- Lot size (waiver)
- Streets (paved or gravel, signage)
- Telephone (required? who installs cabling)

Special Considerations Con't

- Solid waste (central collection)
- Sewage (storage tanks, sewer line size & condition)
- Electric meters (individual or group)
- Electrical (inspection, certifications, power lines)
- Street lights (utility or government installed)
- Mail Boxes

Special Considerations Con’t

- Water (connection to mains, size of main)
- Water meters (individual or group)
- Fire Suppression (connector size)
- Wash houses (washers and dryers)
- Gas (type certification

Special Considerations Con't

- Handicap requirements (street crossings, ramps).
- Fencing (separate on-going construction, major roads & streets).
- Reach an early agreement with FEMA on credits placed on signs at group sites.
- Compaction of trenches.

Ramifications

- Political: Don’t move my voters out of my district.
- Homeowners: I don’t want a trailer park in my back yard.
- Travel trailers are not built for extremely large people.

Housing Issues

- Identifying people to move into site
- Assessing over 100 potential sites
- Developing sites near impacted area
- Utilities especially water and sewage
- Acquisition of sites

Site Criteria

- Above 100 year flood elevation
- No filling of flood plain – LOMR issue (3 weeks)
- Flat Ground
- Landowner willing to participate
- Environmental Assessment
- Distance to schools, hospitals, shopping
- Access road
- Utilities – water, sewage, electric, phone

2. Attachment Essential Elements of Information

Site Name: ____________________ Site ID: ____________ Date: ______ Time: ___
Owner(s): ____ Phone: ______________
Address: ____
Owner interested: ____
Latitude: ____________________________ Longitude: _______________________
Acres: ________________________________ Pads: __________________________

Utilities
Electric Y/N
Sewer Y/N
Gas Y/N
Water Y/N
Phones Y/N

Miles to Nearest:
Elementary _____
Hospital _____
High School _____
Fire Hydrant _____

Other:
Wetlands Y/N
Access Bridge /N
Waterline _____
Sewer Line _____

Notes: ____
____
____

Property availability: ____
Fill Concerns? ____
Good Road Access? ____
Interested in developing it as a Trailer Park? _______________________________
Sketch:

Please include copy of field notebook
Accessed By:

LRH Housing Team

West Virginia U.S.A.
DISASTER AREA
PARKS
TODAY
I'D ORDER

MI-19 OLD LENORE FOOTBALL FIE

MI-19 OLD LENORE FOOTBALL FIELD

- Area = 2.25 Acres
- Estimated No. of Trailer = 13
- Long. : -82.28720 Lat. : 37.80046
- Power – Yes
- Water (6 inch line) – Yes
- Sewer – PACKAGE PLANT WV65-1000
- Flood Plain -NO

Site Selection

Temporary Housing
Planning Response Team (PRT)

Utility Design Checklist

Site Name: # 7	Site Location: Somewhere Site	Date: 9-11-98
Projected # of Units: 200	Anywhere USA	

Utility	Company/POC Name	Phone Number	Fax	E-Mail
Water				
Wastewater				
Electrical				
Telephone				
Cable TV				
Gas				
(City)				

✓	Item	Responsibility		
		COE/ Contractor	City	Utility Company
	WATER			
	Plumbing Code Requirements Identified			
	Waivers ☐ Required ☐ Obtained			
	Existing Water Lines Located			
	Available Main(s) Size			
	Material			
	Pressure			
	Flow			
	Water Storage Necessary? ☐ Yes ☐ No			
	Type of Metering			
	☐ None			
	☐ Master for Site			
	☐ Individual Unit			
	Meters Purchased From:			
	☐ Water Authority			
	☐ Supplier			
	Water Main Tap In Connection Responsibility:			
	Tap in Fee? ☐ Yes ☐ No			

✓	Item	Responsibility		
		COE/ Contractor	City	Utility Company
	Local Health Authority Approval? ☐ Yes ☐ No			
	POC: Phone:			
	Fire Protection Considerations			
	Fire Protection Needs Coordinated? ☐ Yes ☐ No			
	POC: Phone:			
	Fire Protection Standard Used: ☐ NFPA #501A ☐ Local			
	Other Fire Protections Requirements Identified?			
	Hydrant Requirements			
	______Maximum Distance Between Hydrants			
	______Connection Sizes			
	______Thread Size			
	Available Pressure and Volume Adequate to meet Fire Needs?			
	☐ Yes ☐ No			
	WASTEWATER			
	Plumbing Code Requirements Identified?			
	Waivers ☐ Required ☐ Obtained			
	Existing Sewer Lines Located			
	Available Collector(s) Size			
	Material			
	Capacity			
	Lift Station(s) Necessary? ☐ Yes ☐ No			
	Holding Tank Necessary ☐ Yes ☐ No			
	On-site Treatment Necessary? ☐ Yes ☐ No			
	Approving Authorities:			
	Agency: POC:			
	Phone:			
	Approval Secured in Writing? ☐ Yes ☐ No			
	Other Permits Required for Treatment Facility (define):			
	Physical Sewer Tap-In Responsibility:			
	Tap in Fee? ☐ Yes ☐ No			
	Local Health Authority Approval? ☐ Yes ☐ No			
	POC: Phone:			

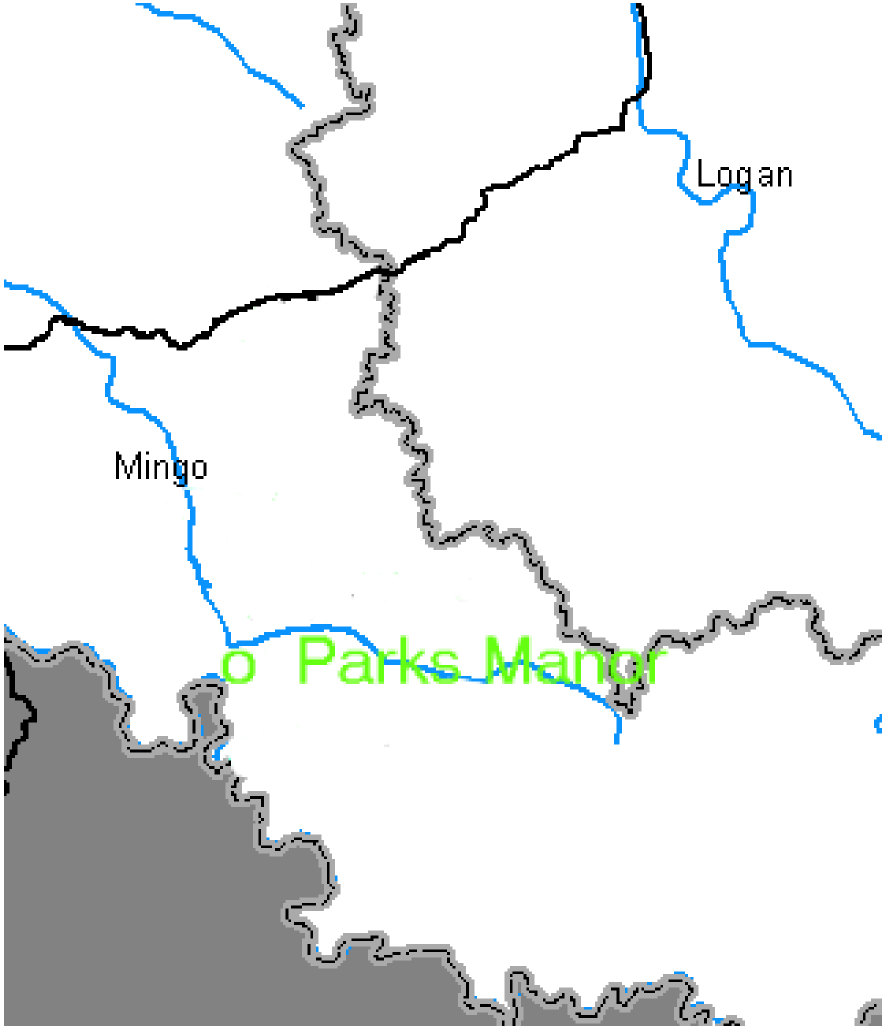
✓	Item	Responsibility		
		COE/ Contractor	City	Utility Company
	ELECTRICAL			
	Applicable Electrical Code Identified			
	Code ☐ National ☐ Local			
	Certified Electrical Inspections Required? ☐ Yes ☐ No			
	Type of Electrical Service ☐ Overhead ☐ Underground			
	Service for Package Sewer Plant Required? ☐ Yes ☐ No			
	Service for Lift Station Required? ☐ Yes ☐ No			
	Available: ☐ Single-Phase ☐ Three-Phase			
	Local Electrical to Provide Electrical Design for Corps Site Plan.			
	☐ Primary Line Locations			
	☐ Secondary Service Locations			
	☐ Transformer Locations			
	☐ Street Light Locations			
	Street Lighting Unit Selected			
	Individual Site Meter Posts			
	Coordination of Electrical with Utility Excavator			
	TELEPHONE			
	Type of Telephone Service ☐ Overhead ☐ Underground			
	Telephone Line Placement Coordinated with Power Company			
	CABLE TV			
	Cable TV Distribution to be Provided? ☐ Yes ☐ No			
	The local cable TV company should be advised on the need for coordination of cable installations when the utility trench is open.			
	GAS			
	Gas Service Required for Site? ☐ Yes ☐ No			
	Type of Service: ☐ Natural Gas ☐ Bottled LP			
	Existing Gas Mains Located			
	Available Main(s) Size			
	Material			
	Gas Meter Specifications Identified? ☐ Yes ☐ No			
	Gas Line Tap In Connection Responsibility:			
	☐ Local Gas Co ☐ Corps Contractor			
	Tap in Fee? ☐ Yes ☐ No			
	Local LP Supplier(s) Identified and Contacted			

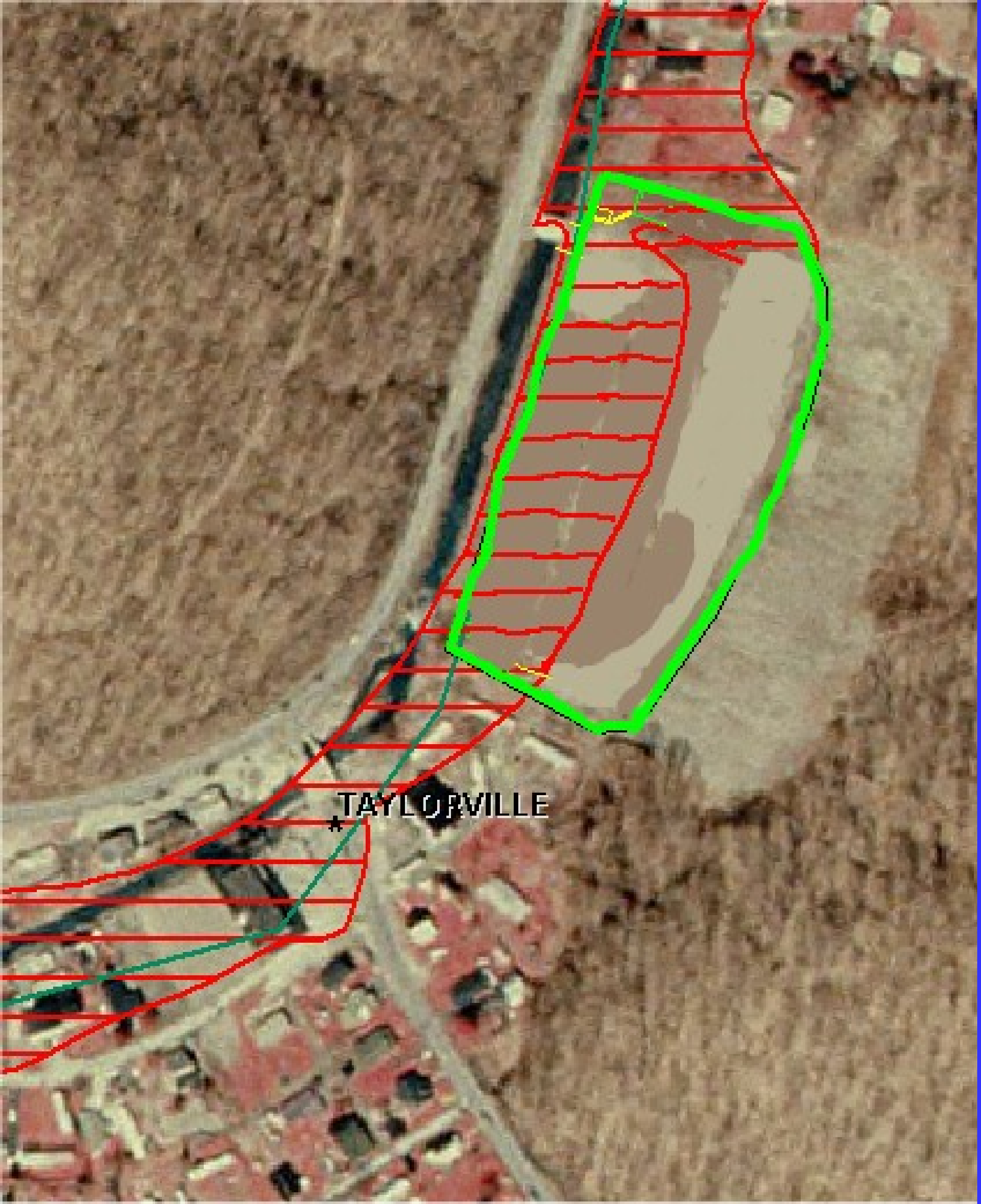
✓	Item	Responsibility		
		COE/ Contractor	City	Utility Company
	SOLID WASTE			
	Type of Collection to be Provided for Mobile Home Sites			
	☐ None			
	☐ Centrally Located Dumpsters			
	☐ Individual Pickup at Each Residence			
	Pad Requirements for Central Dumpster Sites			
	______ Number of Separate Dumpster Sites			
	☐ Graveled Pad			
	☐ Asphalt Pad			
	☐ Concrete Pad			
	☐ Fenced Enclosure Required. Type:			
	Temporary Onsite Storage Required? ☐ Yes ☐ No			

Parks Manor

35 To 45 Housing Units

20 to 25 K per pad


Logan
Mingo
o Parks Manor

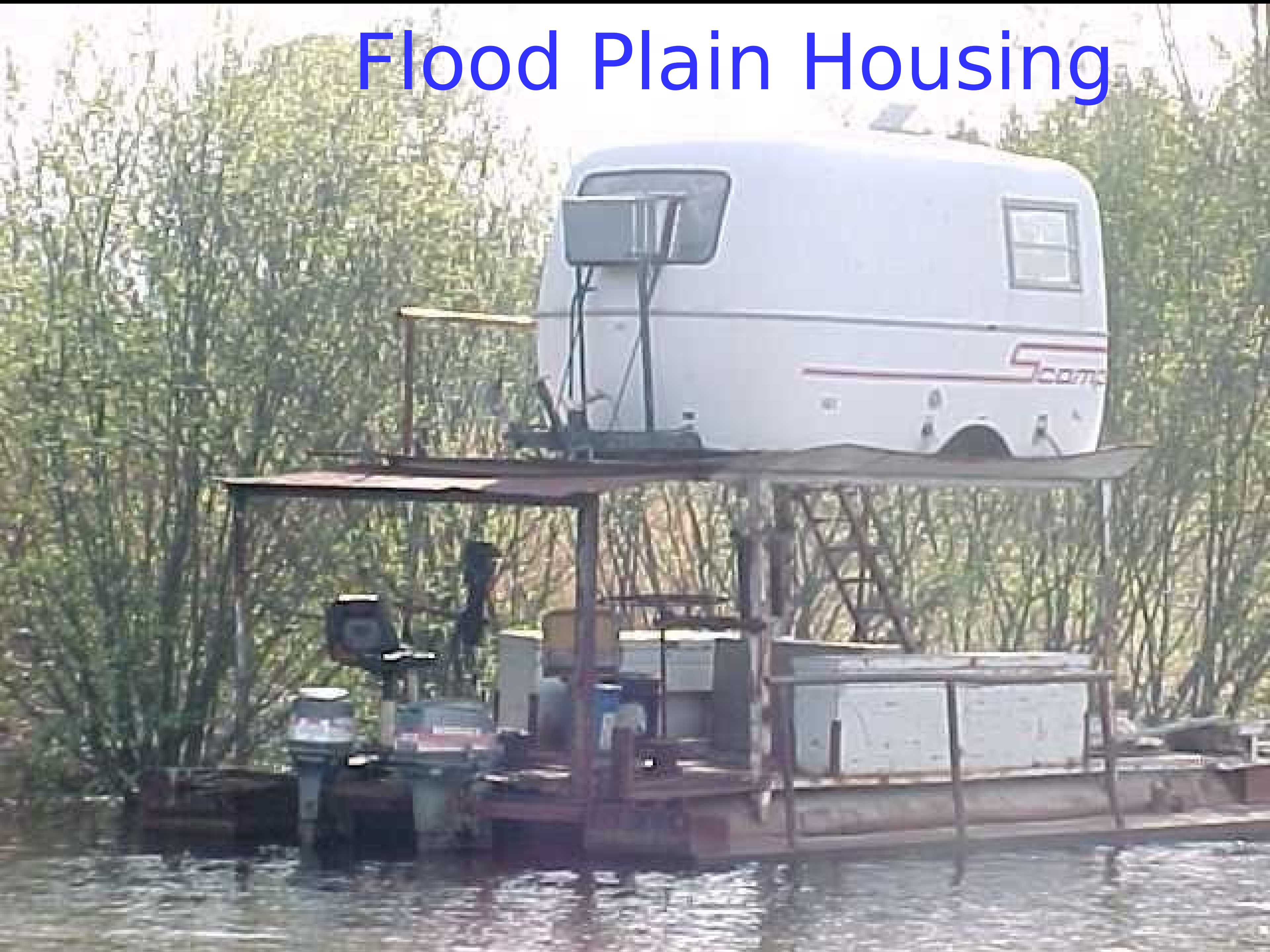

TAYLORVILLE

Parks Manor

Issues:

- Site had been filled
- Required 100 year flood analysis
- Require Letter of Map Revision

Flood Plain Housing



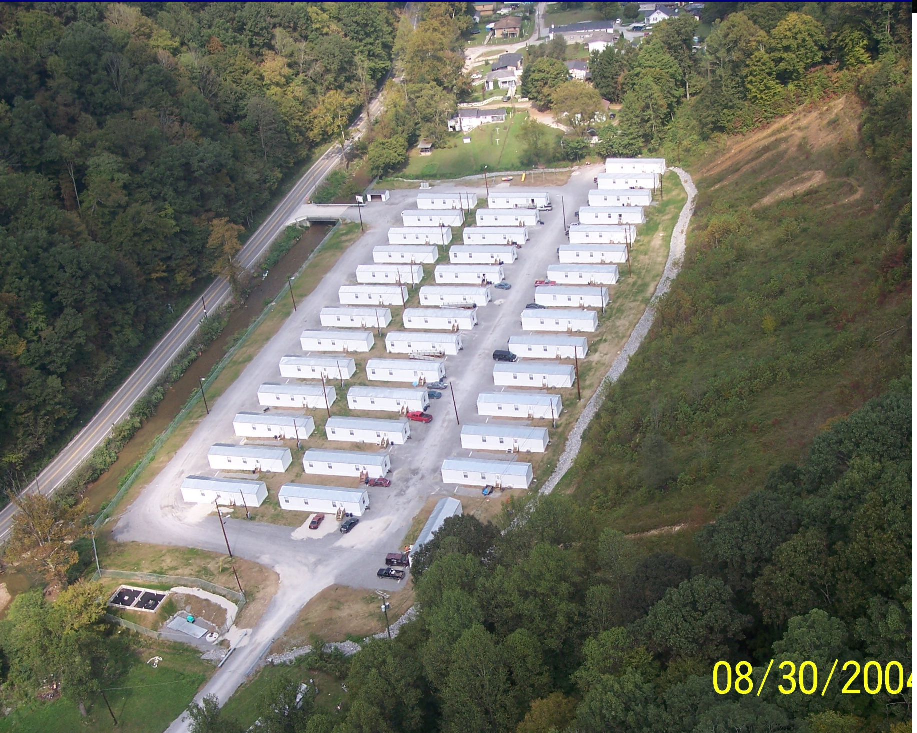
Parks Manor Summary

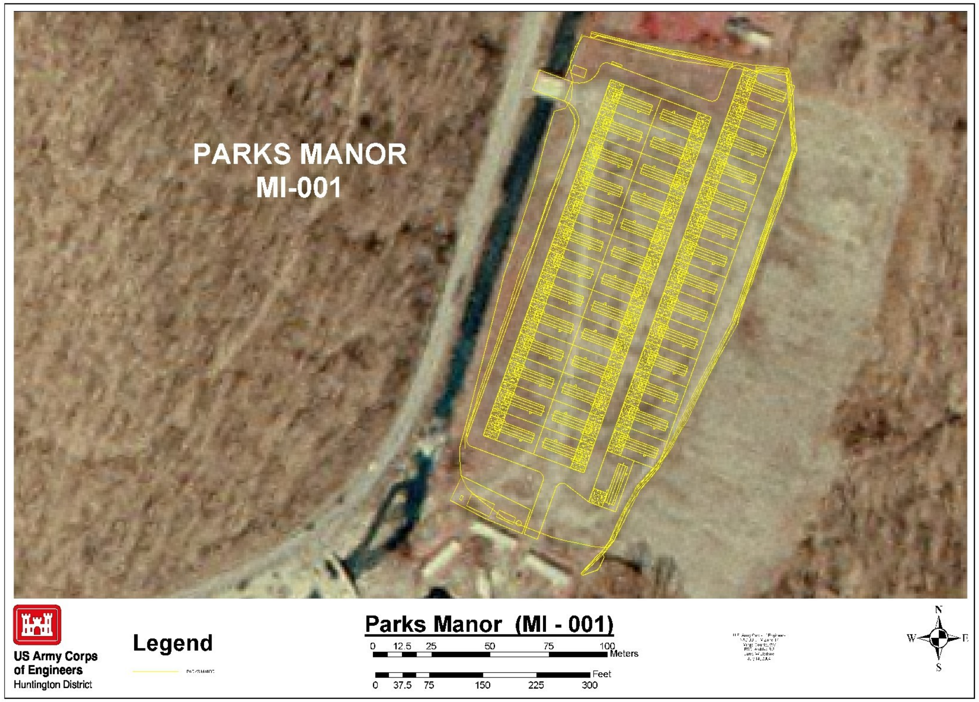
Estimated Construction Cost	**$ 599,192**
Awarded Construction Cost	**$ 650,000**
Cost Delta	**$ 50,808.00**
Extra Items	
Package Plant	$ 62,000.00
Prior Contract	$ 70,000.00
Prior Survey	$ 5,000.00
AEP Contract	$ 27,950.00
Total Cost	**$ 814,950.00**

**Approx.
$21K/pad**

Parks Manor

41 pads




PARKS MANOR
MI-001
US Army Corps of Engineers
Huntington District
Legend
Parks Manor (MI - 001)
0 12.5 25 50 75 100 Meters
0 37.5 75 150 225 300 Feet
N
E
S
W

Parks Manor

Parks Manor

Night Operations

AEP

Utility Construction

26 10:48 AM

Parks Manor

Ground Breaking 30 June

Temporary Housing
Parks Manor
FEMA
200LC
KOMATSU

Ribbon Cutting 13 Aug

FEMA
08/13/2004

MEMORANDUM FOR RECORD 17 September 2004

SUBJECT: Acceptance of the Temporary Housing Site (Parks Manor), Mingo County, West Virginia.

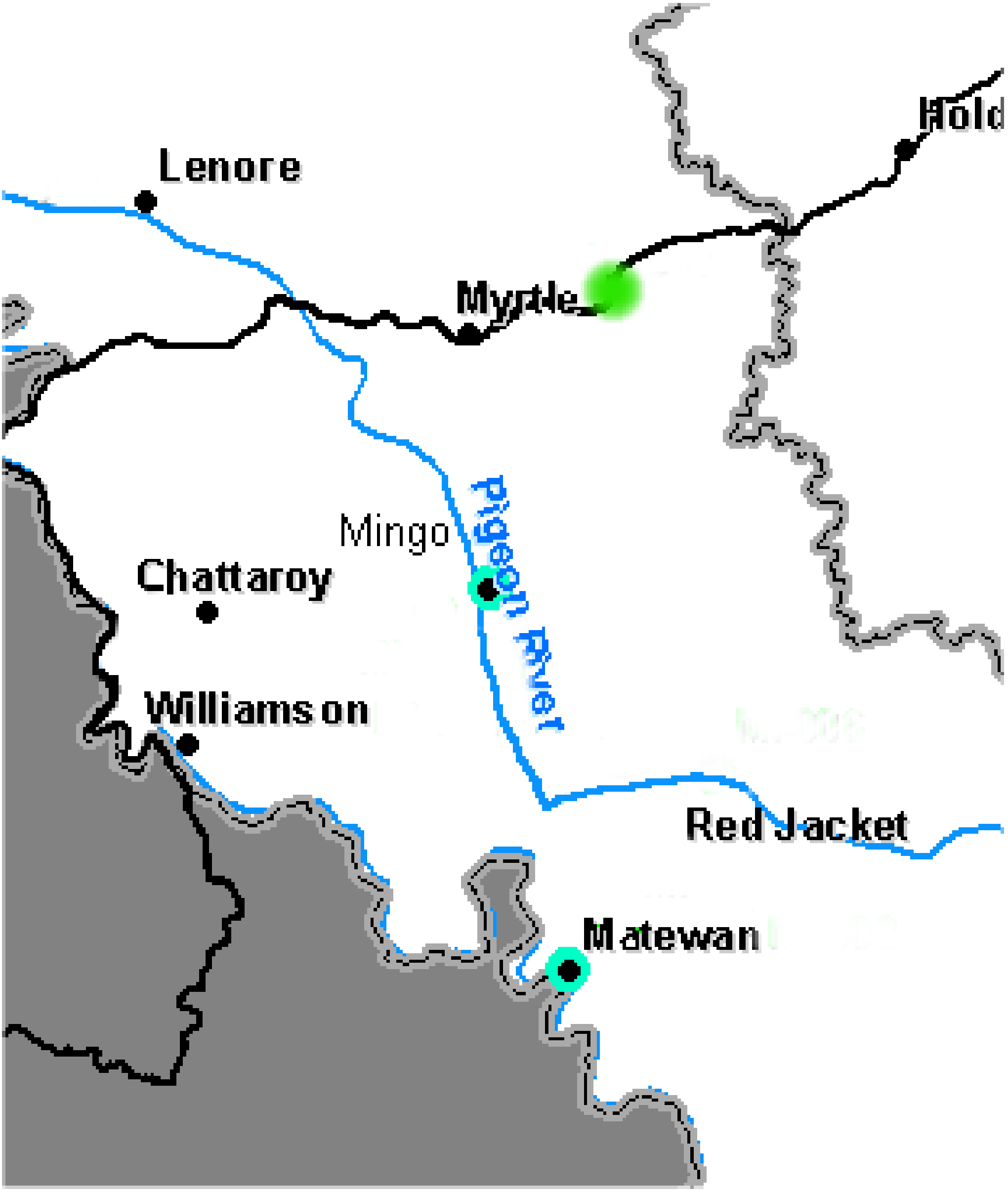
1. The undersigned have reviewed and by their signatures, accept the site prepared by the U.S. Army Corps of Engineers for the subject temporary housing trailer site.
2. The Corps developed the subject site for FEMA as a result of the flooding in Southern West Virginia, FEMA DR# 1522-DR-WV, Mission #COE-LRD-04.
3. The subject site was developed under contract documents (DACW69-03-D-0015, Work Order #0027) and the drawing set (DR-1522-WV, Sheets 1 through 16).

West Virginia State Representative Date

FEMA Representative Date

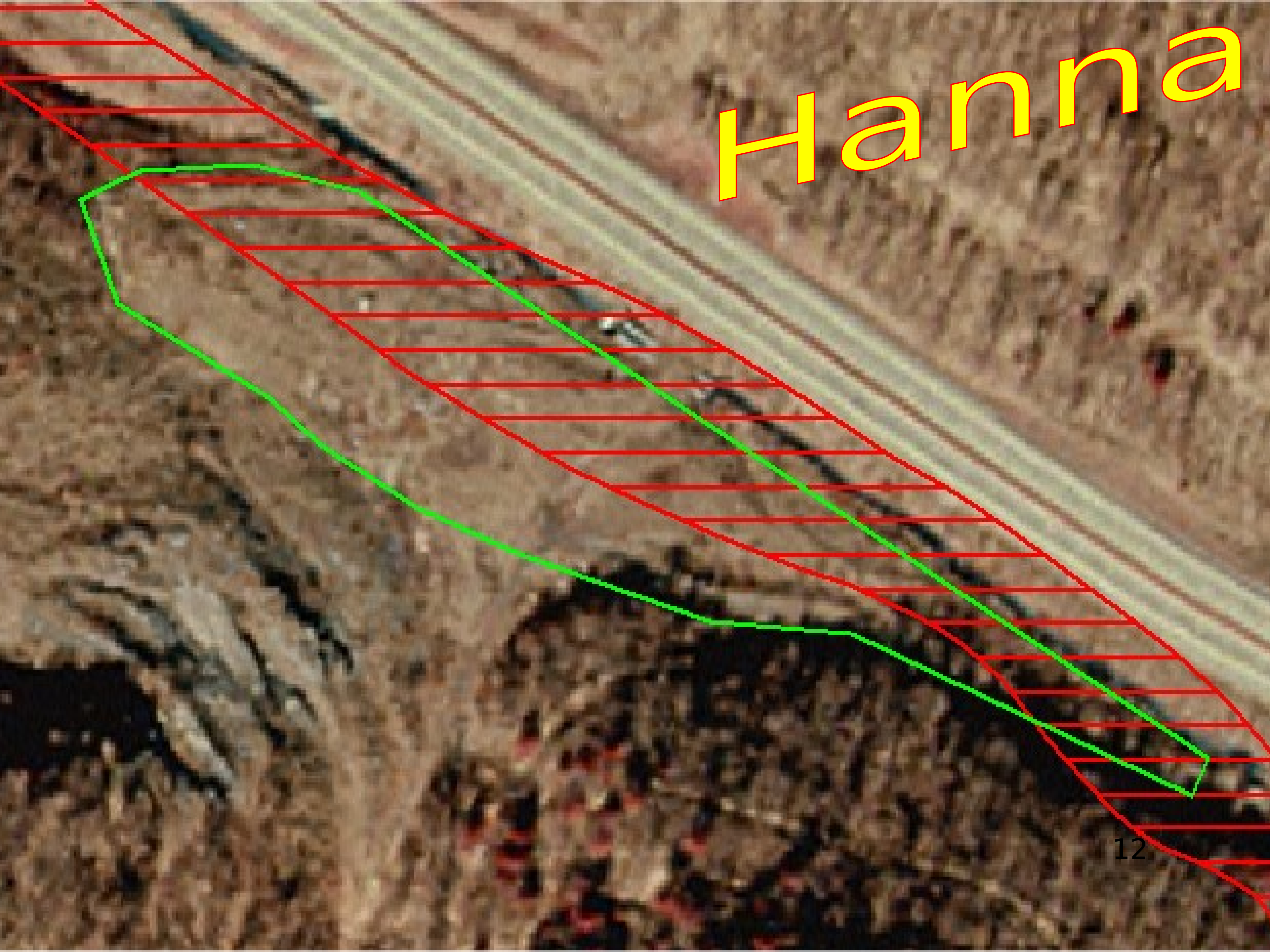
U.S. Army Corps of Engineers Representative Date

Hanna

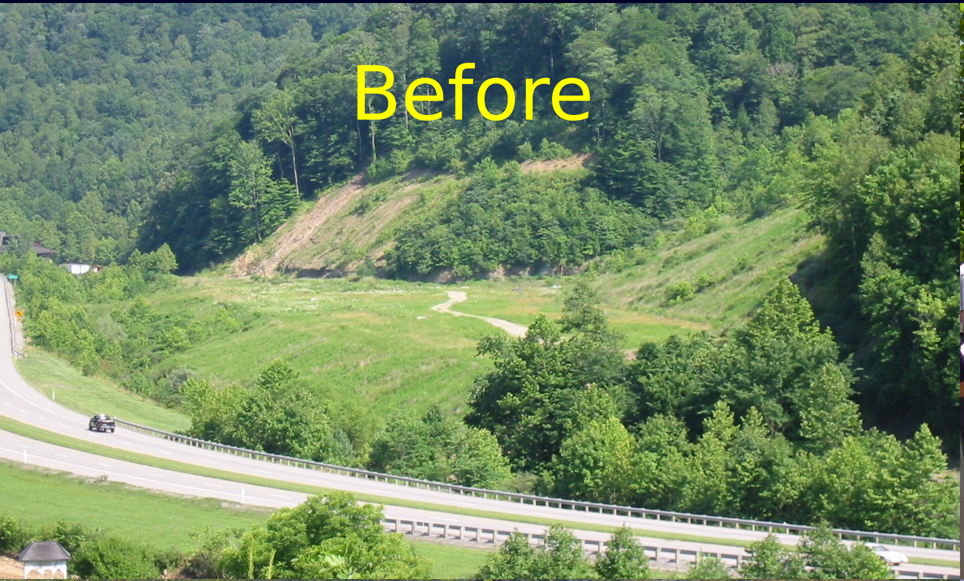

Lenore
Hold
Myrtle
Mingo
Pigeon River
Chattaroy
Williamson
Red Jacket
Matewan

35 To 40
Housing
Units

15 to 20K
Per Pad


Hanna

Daniels Memorial Park

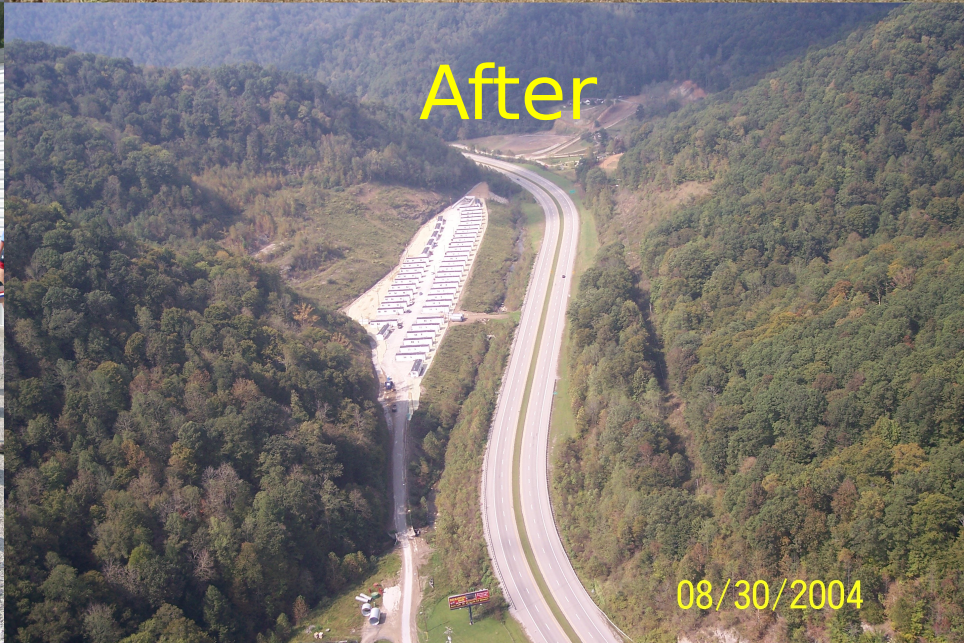


Before

14 Aug

Design and Construction Supervised by:
FEMA
US Army Corps of Engineers
Temporary Housing
Daniels Memorial Park
Ross Brothers Con… Company, Inc.
General Contrac…
Ashland, Kent…

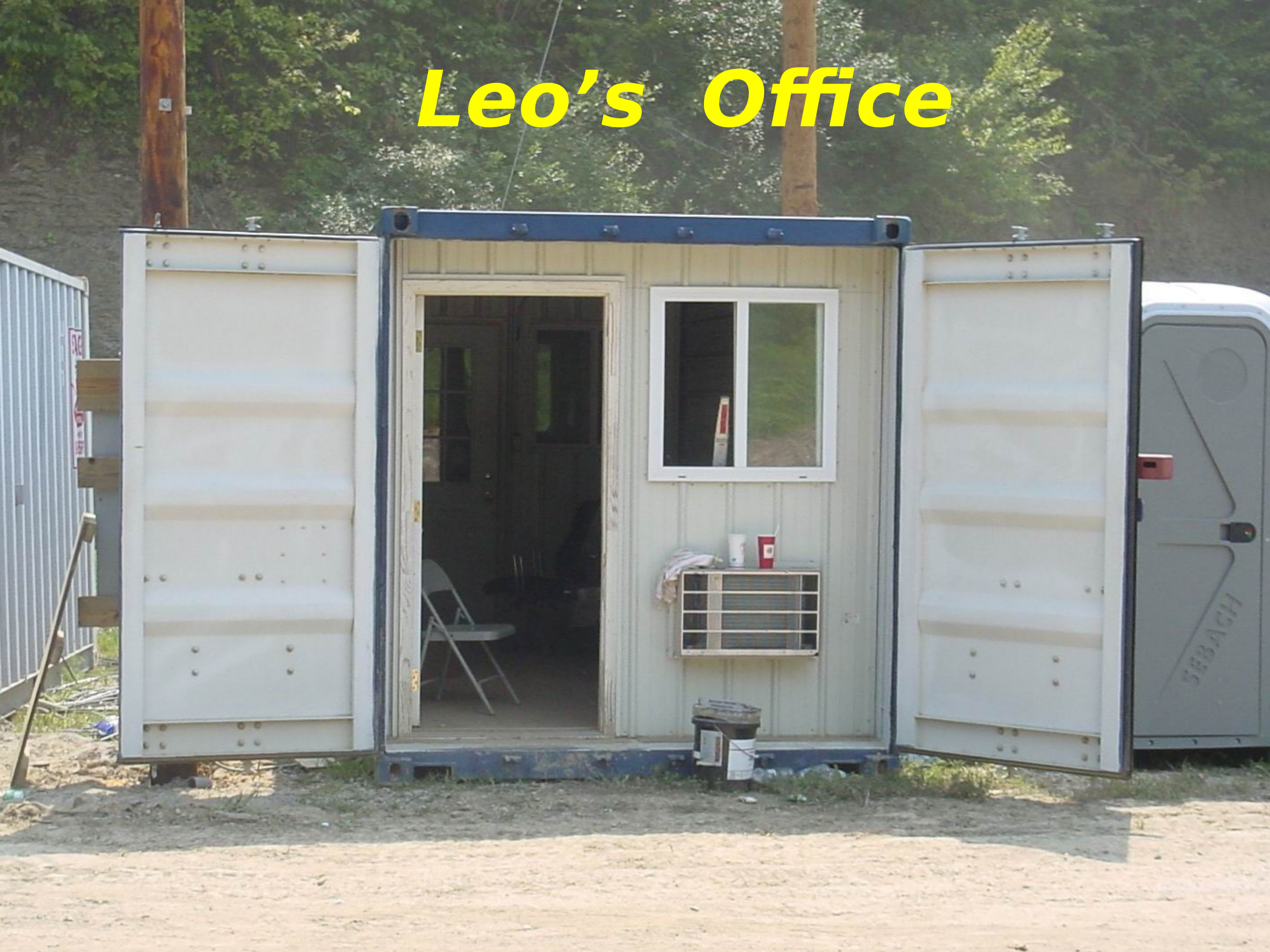
1 Oct



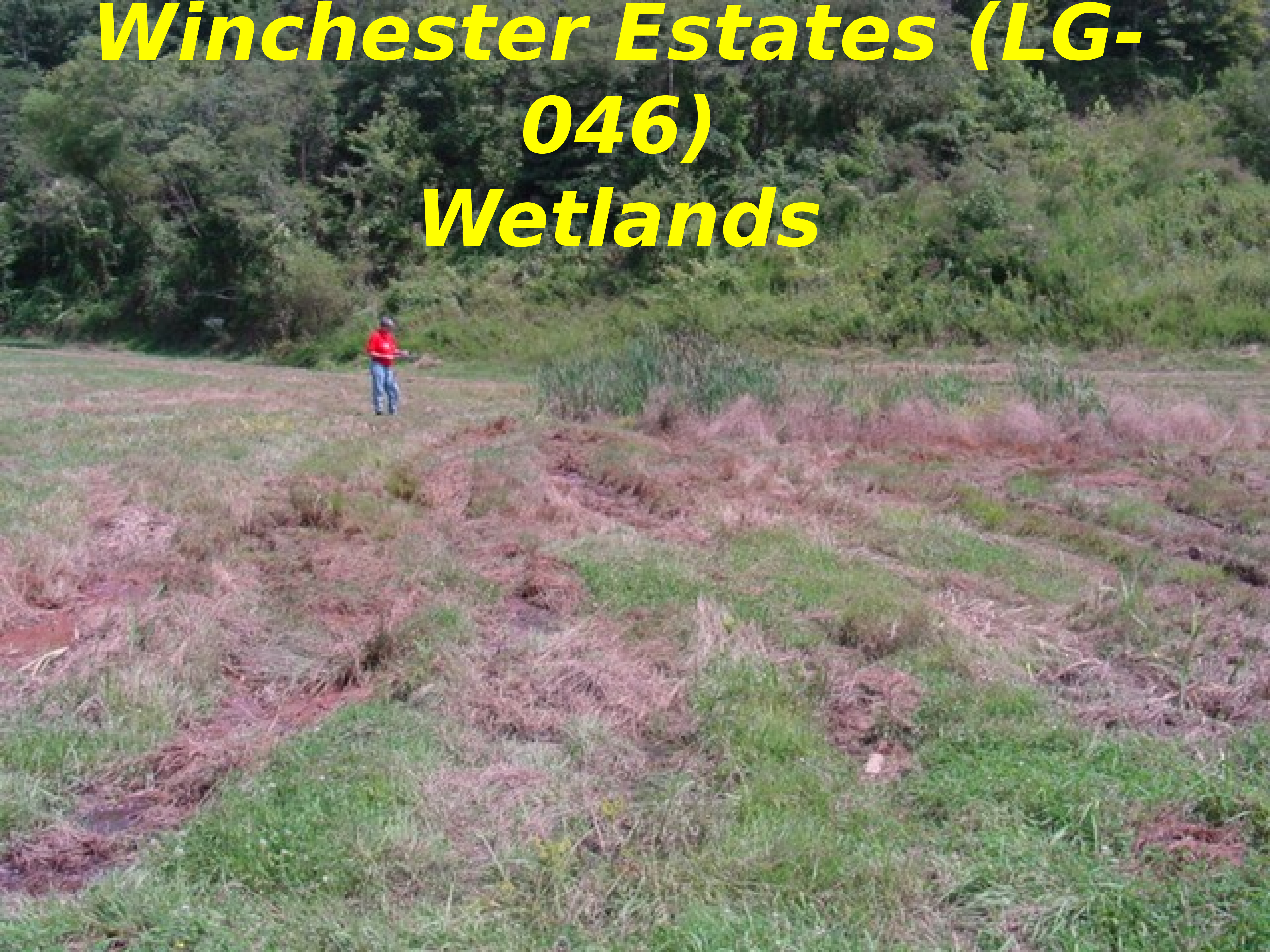
After

08/30/2004

Leo’s Office

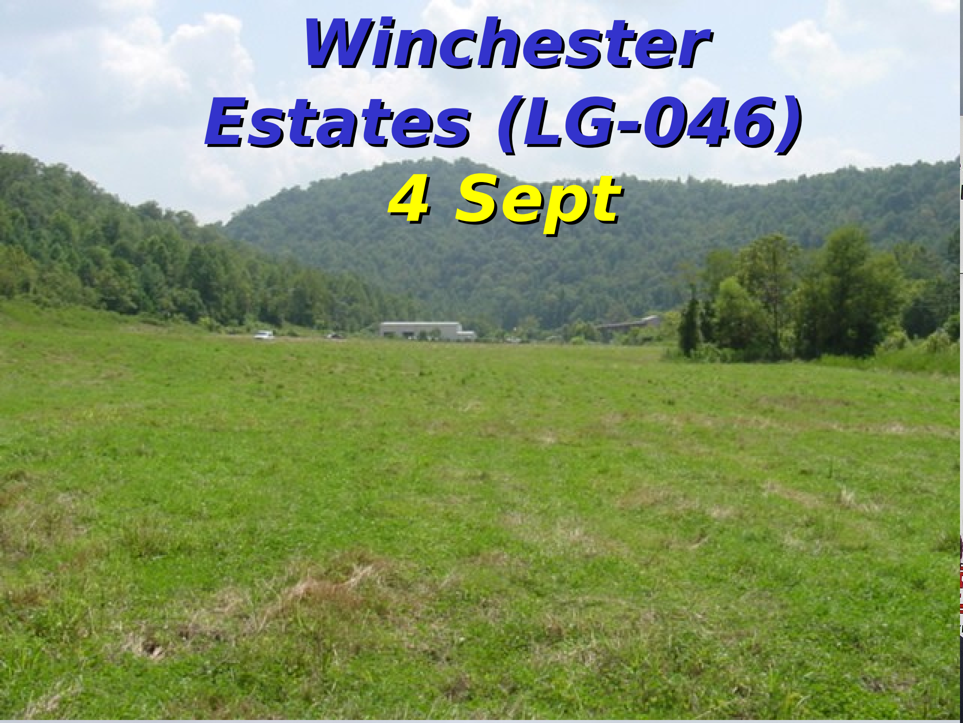


Winchester Estates (LG-046) Wetlands

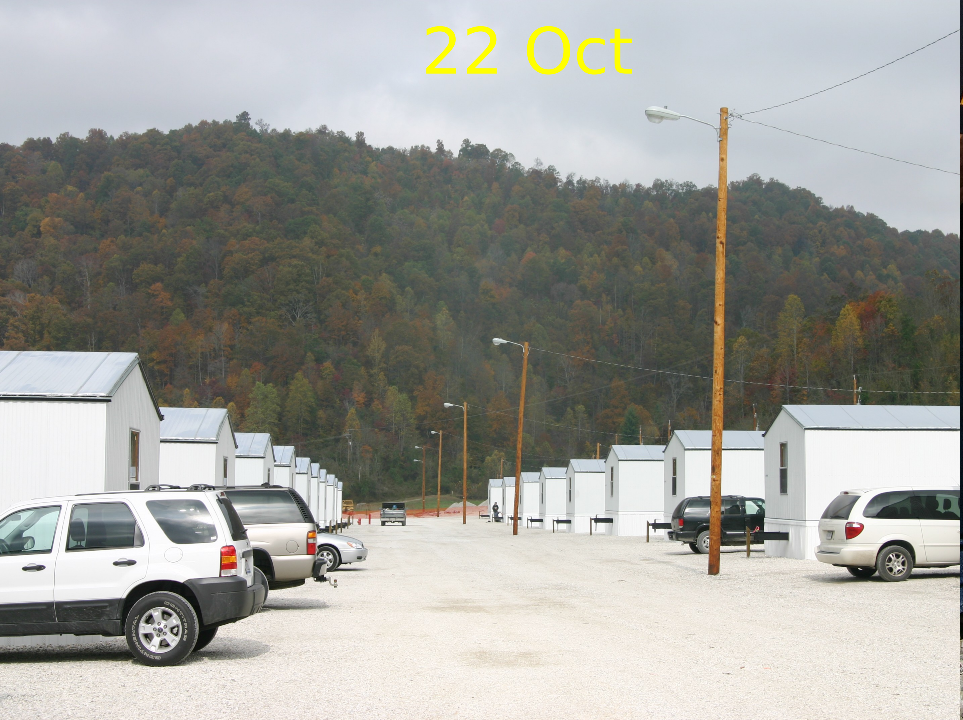


Winchester Estates (LG-046)

4 Sept



22 Oct



sign and Construction
pervised by:
Temporary Housing
Winchester Estates
FEMA
my Corps
neers
Ro thers Construction Co
Contractor
tucky
EMA

Sewage System

Leo’s Many Hats

US Army Corps of Engineers

Talking to FEMA

NEWS FOX
Canon
Emergency Operations

Talking to Press

Design and Construction Supervised by:
FEMA
Temporary Housing
Daniels
U.S. DEPARTMENT OF HOMELAND SECURITY
FEMA
Emergency Operations

Ground Breakings

US Army Corps of Engineers
Emergency Operations
FEMA

What do you want

Design and Construction Supervised by:
FEMA
Temporary Housing
Parks Manor
Ross Brothers Construction Company, Inc.
General Contractor
Ashland, Kentucky
FEMA

Design and Construction Supervised by:
FEMA
US Army Corps of Engineers
Temporary Housing
R.A. West Memorial Park
In Memory of Tom & Ruby West
Ross Brothers Construction Company, Inc.
General Contractor
Ashland, Kentucky
FEMA

Another ribbon cutting

FERMEC
GASOLINE
GASOLINE
GASOLINE
DEPARTMENT OF HOMELAND SECURITY

It is hot today.

7/16/2004

Design and Construction Supervised by:
FEMA
US Army Corps of Engineers
Temporary Housing
Parks Man
Ross Bros
ASHLAND
08/13/

Corps/State/FEMA

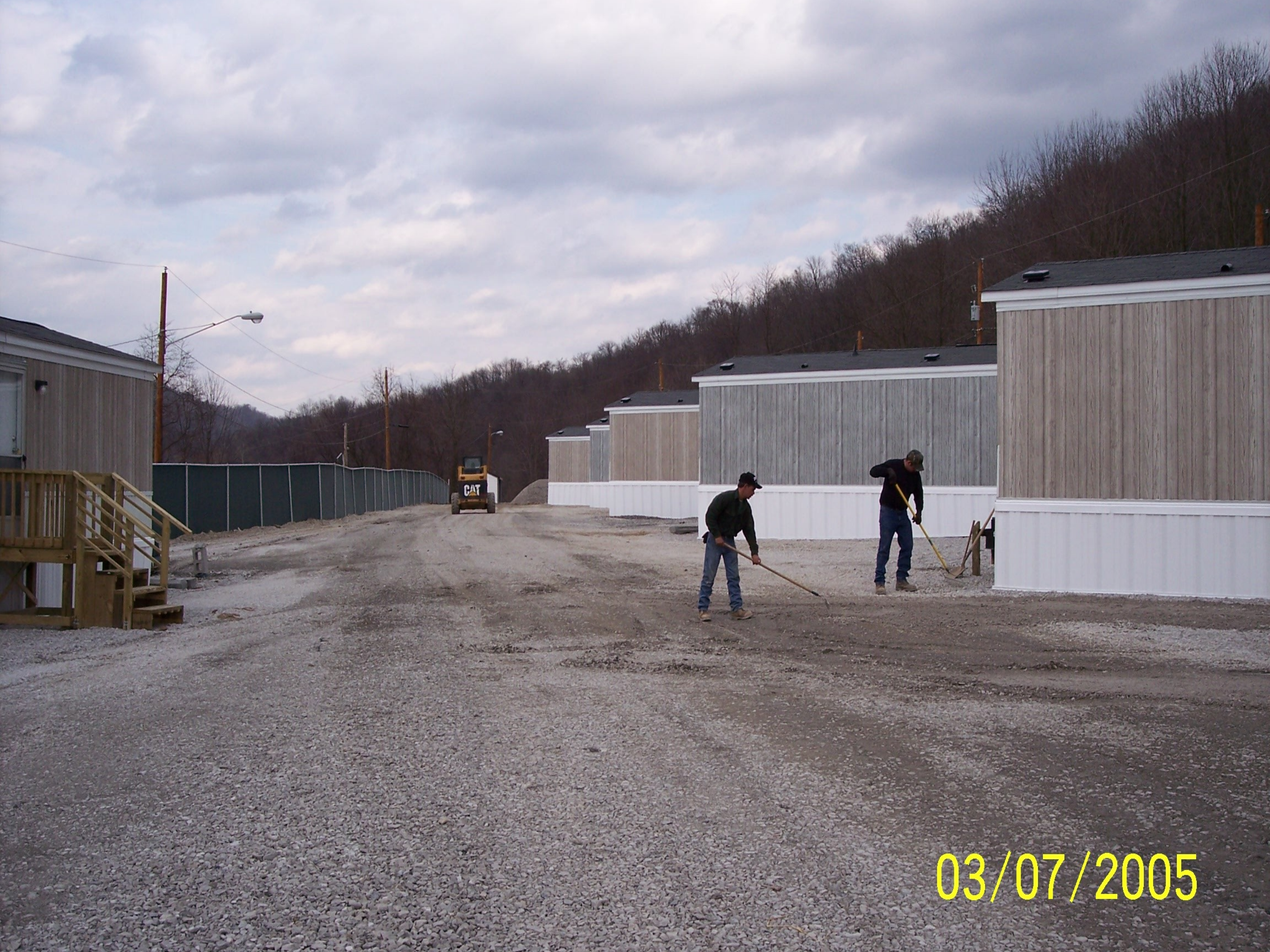
ECONOMY TANK COMPANY
ST. ALBANS WV
10/15/

Carl, we got it.

Temporary
Housing
Winchester
Estates
Ross Bros
Company, Inc.
FEMA

Best wishes!
Bob Wise

02/22/2005


CAT
03/07/2005

02/22/2005

EFO Beckley VA Hospital

5A
U.S. ARMY
CORPS OF ENGINEERS
EMERGENCY OPERATIONS

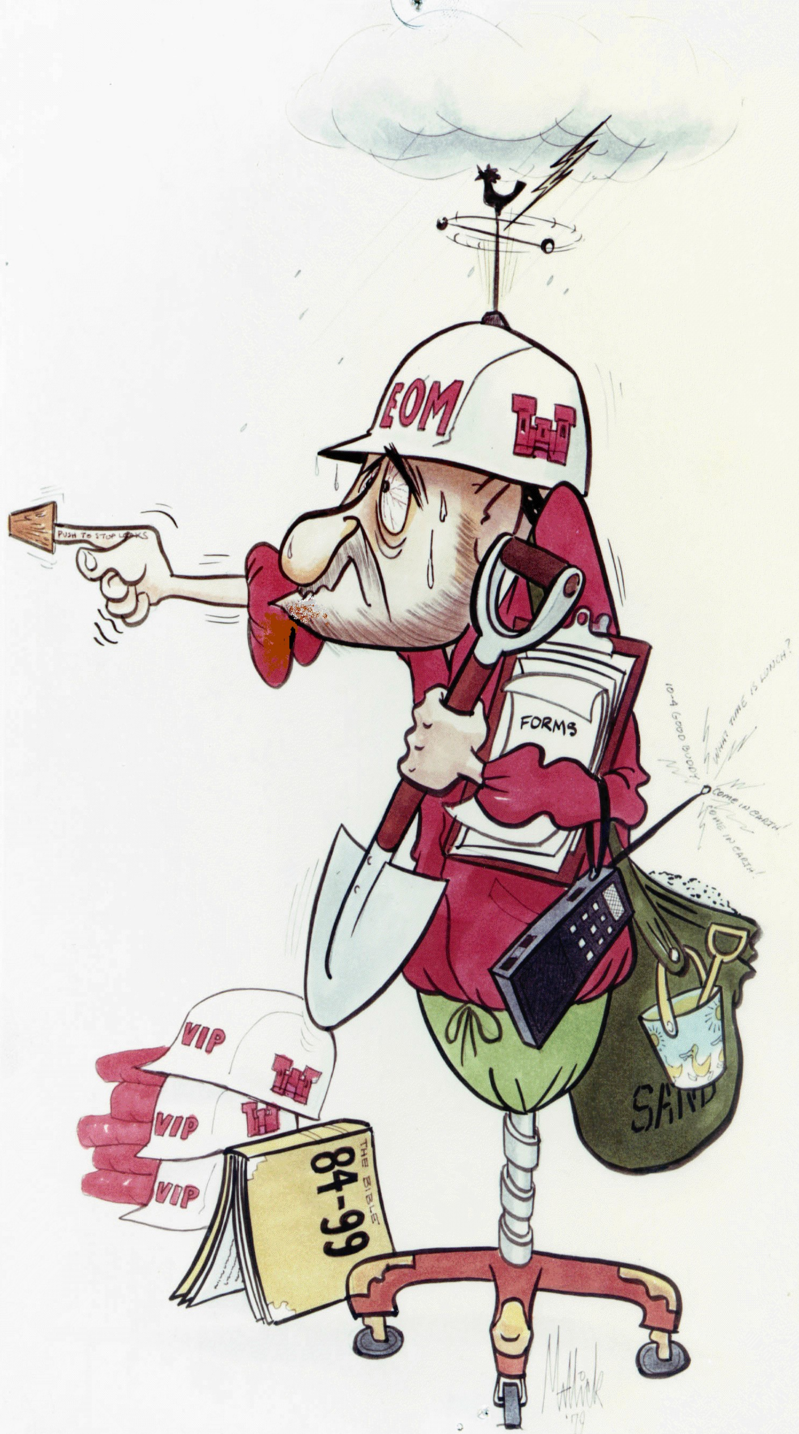
US Army Corps
of Engineers

What to do First ?
Information Saturation

Mission
Guide

Begin as soon as possible

- Do chronology log
- Who is FONSI?
- What is NEPA?
- When did the storm hit?
- Where is the RFO?
- Where is the site?
- What’s a trailer pad?
- How big are the lots?
- Utilities?
- Environmental?
- Right of Entry?
- What is ENGLINK
- Who feeds Englink?
- They want to move in WHEN?

PUSH TO STOP LEAKS
EOM
FORMS
10-4 GOOD BUDDY!
WHAT TIME IS LUNCH?
COME IN EARTH!
COME IN EARTH!
SAND
VIP
VIP
VIP
THE BIBLE
84-99
Matlick '79